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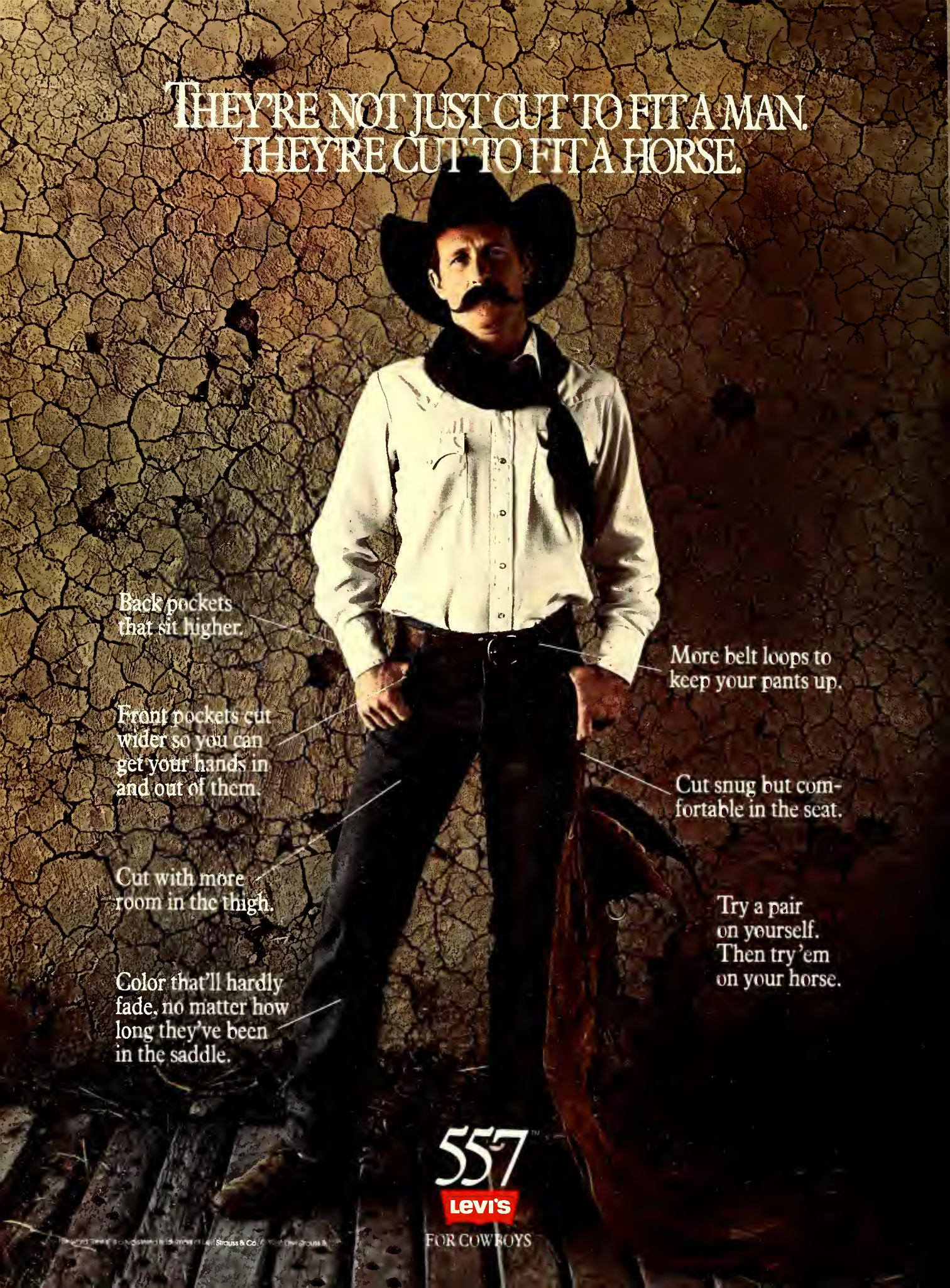
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The National
Future Farmer
Published by the Future Farmers of America

August-September, 1986
Volume 34 Number 6 ISSN 0027-9315

A Word With The Editor

Your future career in farming or ranching may well depend upon your management and financial skills.

This point was made repeatedly by individuals participating in the summer meeting of the American Agricultural Editors' Association held in Columbus, Ohio. Farm industry representatives as well as farmers, who appeared on different panels, stressed this point over and over.

The key words are management, marketing and finances. Traditionally the farmer in America has been production-oriented. Many of our educational programs for farmers have been geared to increased production. Farmers learned their lessons well and produced in quantities the world has never seen. Now the big problem facing agriculture is what do we do with this production when some of our markets are no longer available.

The message is clear for anyone interested in a career in production agriculture. You must, through education, develop your management, marketing and financial skills to the extent of your learning ability. Even your up-to-the-minute electronic information will be of no value to you if you do not possess the necessary management and financial skills.

All four members of a farm industry panel at the meeting believe the family farm will be the dominant farm in the year 2000. However, they did feel it will be considerably different from the family farm as we know it today.

Part-time farming will increase as more farm operators will have off-farm income, according to the panel. This is an option FFA members may want to consider if a full-time farming situation is not available.

Getting established in farming has never been easy. The challenge is still there but the farmer of tomorrow will need more than the skills of production. He will need to be an informed business manager as well.

Wilson Carnes

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Part 2: How essential it is for FFA members to be ready for new biotechnology.

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After learning the trade, John Larsen developed his own farrier business.

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Learn about this mysterious disease and how it affects horses.

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This top-class barrel racer thrives on competition.

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The Cover: *Cover Photo by Andrew Markwart*
Southern region horse proficiency winner Robb Burns of Ralph, Alabama, trains one of his registered Quarter Horses for competitive barrel racing. Robb's story, "Speed Racer," can be found on page 32.

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The FFA News in Brief

Domestic Proficiency Tours

This is the first year for domestic proficiency tours funded by some of FFA's proficiency sponsors. These sponsors will be opening their doors to the national and regional winners and their advisors to reveal what it takes to run their agribusinesses.

JI Case (Ag Mechanics), Pioneer Hi-Bred International Inc. (Feed Grain Production), Shell Companies (Oil, Fiber Crop Production), the American Soybean Association (Oil Crop Production), and the Cotton Council (Fiber Crop Production) will be hosting the groups at their national headquarters throughout the summer.

New German WEA Program

A new student exchange program will be available to FFA chapters for the school year 1987-88 as a result of discussions with the "Bund der Deutschen Landjugend"—FFA's partner organization in West Germany. The new program will bring 30 rural youth, ages 17-18 to the U.S. for a one-year high school program with emphasis in vo-ag / FFA.

For the return program, FFA members will be selected from applicants who graduate from high school in spring, 1987. The year-long program in a German vocational school will be a "fifth year" of high school and may qualify for post-secondary credit. For the 30 FFA members selected, the entire program will be fully paid except for spending money.

America Salutes the FFA

Acts scheduled for the national concert saluting FFA at Arrowhead Stadium in Kansas City, August 2, include ALABAMA, Sawyer Brown, The Forester Sisters, Nicolette Larson, John Anderson, Wolfman Jack (host), Jerry Reed (host), Marshall Tucker Band, Dave Mason, The Band, Johnny Lee, The Drifters, Mitch Ryder, Jason & The Scorchers, Johnny VanZant, Tommy TuTone, and many more. Other top performers are expected to be signed before the event.

The Council Names Pope First Assistant

John Pope has been named the first Executive Assistant to the Chairman of the National Council for Vocational and Technical Education in Agriculture (NCVTEA). Pope will work closely with Dr. Larry Case, chairman of The Council.

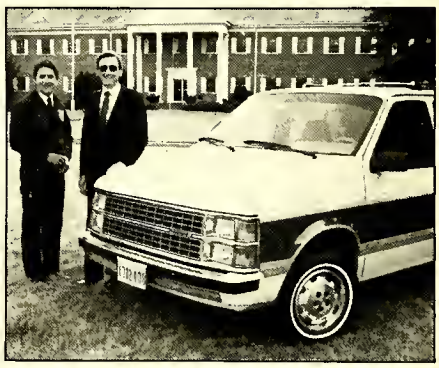
As executive assistant, Pope will develop plans for implementing Council policy, create materials for communications and fundraising, and promote The Council and its goal of improving agricultural education.

Pope, from Maiden, North Carolina, graduated from North Carolina State University in 1985 with a degree in agricultural education and has been active in FFA, serving as national secretary in 1982.

Convention Speakers

Olympic decathalon winner Bruce Jenner and motivational speaker Bob Moawad will speak at the 59th National Convention this November. Jenner and Moawad are being sponsored by Ford Motor Company and ConAgra, Inc., respectively.

Caravan Donated



The National FFA Organization has received a 1986 Dodge Caravan LE from Chrysler Corporation. The fully-equipped van was donated for use by FFA as a special project of the National FFA Foundation. The Caravan will be used for official travel by the FFA staff.

"With the amount of travelling now done for the organization," said Dr. Larry Case, national FFA advisor, "The Caravan will be a great time and money saver. Chrysler's gift couldn't have come at a better time."

McKittrick, Bailey, Join Foundation

Tom McKittrick of Milwaukee, Wisconsin, and Tim Bailey of East Lansing, Michigan, have been named to the National FFA Foundation staff. Both former state FFA officers will be involved in corporate fundraising and other contribution-related activities.

FFA CAPS— A GREAT FIT FOR ANY OCCASION

Featuring the new blue corduroy cap for a perfect match with the official jacket.

Blue Corduroy Cap

FFA letters in bright gold stitch highlight this new cap made of the same corduroy material as official jacket. One size fits all.

Item CAP-8 ..... ea. $5.95 each

Blue Denim Cap

This popular cap features gold striping on blue denim with matching FFA emblem. Adjustable strap in back for proper fit.

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Camouflage Cap—Solid

Best-selling FFA cap ever, camouflage cap now has matching accessories—see 1986-87 supplies catalog for details. One size fits all.

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Looking Ahead

Cotton Sales to Increase

U.S. cotton exports will increase significantly when portions of the new Farm Act take effect August 1. Industry analysts expect the U.S. to export 5.5 to 6 million bales during 1986-87, compared to approximately 2 million bales for 1985-86. "Essentially, the Farm Act guarantees that U.S. cotton prices will be competitive," says Ira Livingston, Cotton Incorporated vice president for international marketing. "Our prices won't necessarily be the cheapest, but U.S. cotton will be at competitive levels with other cottons."

Chess, Anyone?

The trade dispute between the U.S. and the European Community is an international chess game with American farmers caught in the middle of the playing board, according to participants in a recent U.S. feed grains trade team.

The team of feed grains producers and agribusinessmen met with top E.C. trade and agricultural officials across Europe to demonstrate American interest in fighting against the loss of our traditional feed grains export markets to the E.C. U.S. feed grains producers stand to lose a $624 million market with the addition of Spain and Portugal to the E.C. The mission was coordinated by the U.S. Feed Grains Council on behalf of the National Corn Growers Association, the National Barley Growers Association and the National Grain Sorghum Producers Association.

Big Boss

Agriculture is the nation's largest employer. Around 21 million people work in some phase of agriculture—from growing food and fiber to selling these products at the supermarket. This amounts to about one out of every five jobs. Farming alone uses 3.4 million workers, as many as the combined work forces of the steel, transportation and automobile industries, according to the Department of Agriculture's Office of Information.

Also, food from American farms comes in some 10,000 to 15,000 different products at supermarkets. Many of these products did not exist 5 years ago, and may not exist in another 5 years. The reason: Food marketers respond to our fondness for newer foods, built-in conveniences and attractive packages that preserve quality.

Satellite Loss Hampers Weather Forecasting

A Geostationary Operational Environmental Satellite (GOES-7) was destroyed in a May 4 explosion of a $30 million Delta rocket at Cape Canaveral, Florida. As a result, hurricane forecasters cannot detect storms as early as they once could, a service of which ag producers depend heavily. The U.S. now has one satellite working double duty, in a narrower range, until another satellite can be launched.

Cobra Testing Continues

Tests of Cobra herbicide by growers in 24 states demonstrated the postemergence soybean herbicide's high level of effectiveness against over 30 broadleaf weeds, reports PPG Industries. "The results showed that Cobra herbicide provided consistent weed control under various conditions, and proved that it easily controls such problem weeds as cocklebur, morning glories, velvetleaf, pigweeds, teaweed, giant and common ragweed, and black nightshade," says David Ervin, PPG's Cobra herbicide product manager. Cobra should be available prior to the 1987 growing season.

Crystalized Corn Sweetener

A.E. Staley corn refiners have developed a crystaline fructose corn sweetener to compete with dry sugar in several selected processed foods. The new product, trademarked "crystar," will be used in powdered beverage mixes, cereal coatings, dry mix desserts and confections. Construction of a production facility has already begun in Lafayette, Indiana, where 100 million pounds of the sweetener will be produced annually, starting in the spring of 1987.

Forest Tree Planting Sets Record

For the fourth consecutive year, the nation has broken all previous records for planting forest trees, Secretary of Agriculture Richard E. Lyng said. Trees were planted on 2.7 million acres in 1985, up from the previous high of 2.5 million in 1984. About 1.9 billion tree seedlings were produced for the plantings. Lyng said USDA's Forest Service predicts tree seedling production for 1986 may go over the 2 billion mark for the first time in history.

Cola With a Kick

Just when consumers are demanding diet, health-oriented soft drinks, what should appear but "Jolt Cola," a soft drink that contains twice the caffeine of regular colas and is made with 100% pure sugar. Jolt's target market is younger children, and according to Jolt Company, Inc. president C.J. Rapp, kids will buy the product "because it's, well, naughty."

Check It Out

The Kroger supermarket chain and a Florida electronics firm are teaming up to provide the latest in supermarket convenience—self-service check-out. The system has shoppers running the contents of their shopping carts over a bar code scanner and then presenting the total to a store employee at a cash register.

The reason for such a system results from consumers' distrust of the scanners and fast check-out cashiers. They can also check the total at anytime to make sure they don't overspend.

Biotech Research Responsibilities

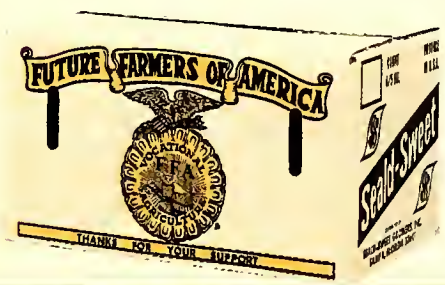
The U.S. Department of Agriculture has responsibility for researching and regulating the biotechnological areas of veterinary biological products, plants and plant products, meat and poultry products and seeds. Products developed through biotechnological methods will be subject to the same rules for evaluating product purity, safety, potency and effectiveness as for those developed through conventional research. These evaluations will require appropriate research reviews to ensure biotechnological products produce no adverse effects on human health or the environment. (See related story on page 14.)

We can both profit from the fruit of our labor.

We're Seald-Sweet Growers, an agricultural cooperative in Florida since 1909. As long-time supporters of the Future Farmers of America, we want to tell you that every time you sell our sweet juicy navels, grapefruit and oranges as part of your fund-raising efforts, we all profit. You'll profit because the recognized quality of our premium fresh citrus makes for an easier sale and greater customer satisfaction.

We're Florida's only nationally advertised line of citrus. You'll profit even further because you'll be strengthening the position of farmers—exactly the people you aspire to be. To learn more about how we can both profit from the labor of farmers call Seald-Sweet Growers, Inc., *Toll Free* at 1-800-237-7525.

And remember, the special FFA carton will be provided at no additional expense to you as our way of saying "thanks" for your continuing support.



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We've added Rem™ Choke to our 12-gauge pump and auto shotguns with 28" barrels. Interchangeable "Rem" Choke tubes are stronger than others. So they handle harder steel shot better. Available in full, modified and improved cylinder, "Rem" Choke fits flush with the barrel. The 12-gauge pump and auto are also available in the 30" barrel with full choke and vent rib.

To the Model 78 centerfire rifles, we've added the 223 Rem caliber to the popular 243, 308, 270 and 30-06. It's the same Remington action and barrel long recognized for strength and accuracy. And known for its knockdown power, when used with "Core-Lokt" ammunition.

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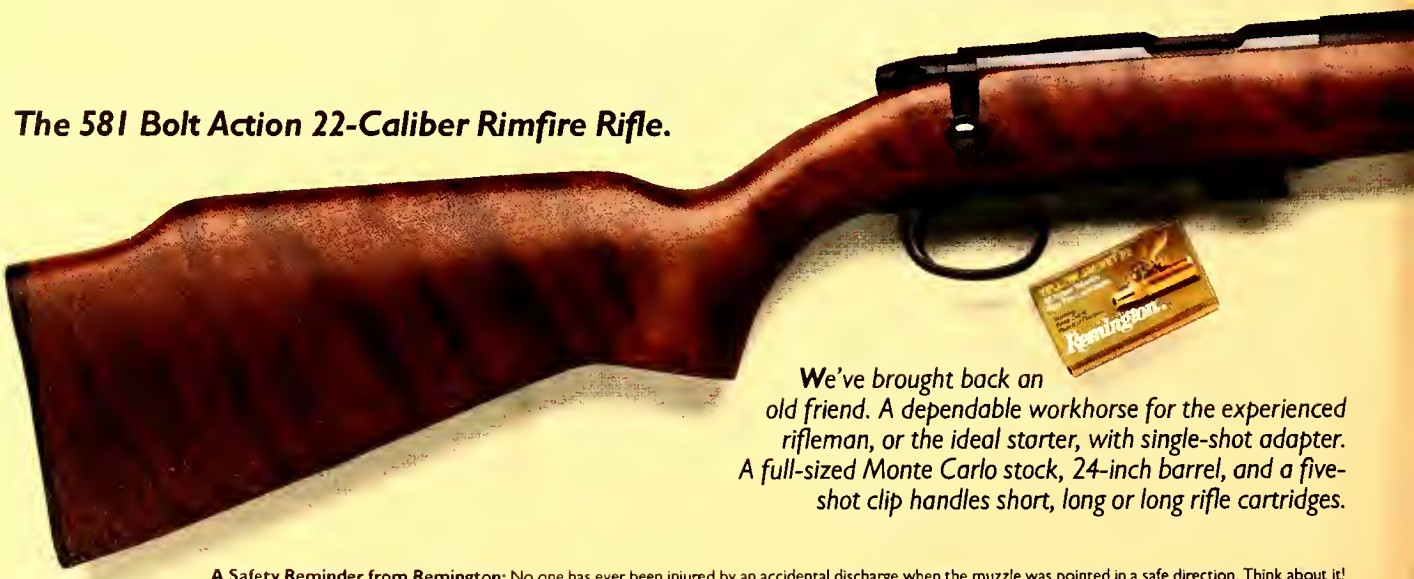

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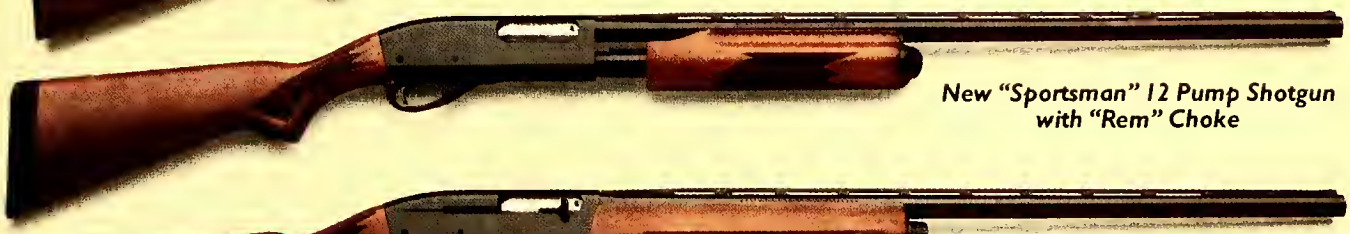

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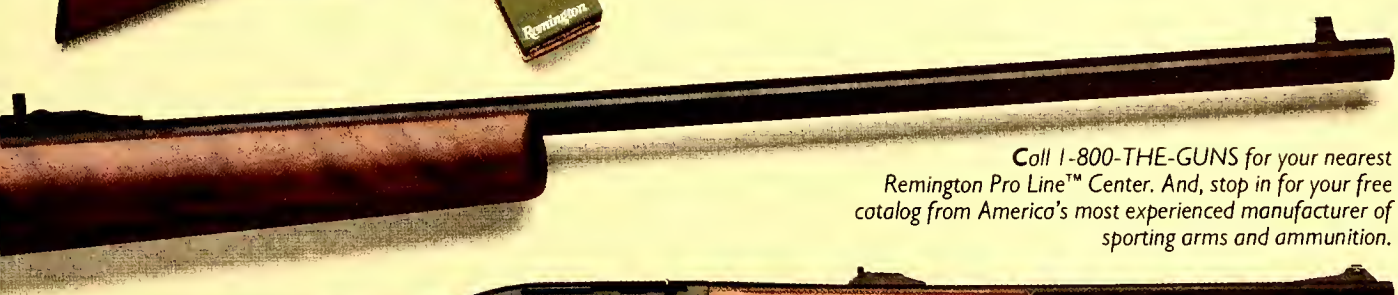

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The Mailbag

Greenhand Encouragement

The FFA has given me more than I ever expected. I have gained leadership skills, life-long friends, learned to believe in myself and much more. I want to encourage the new Greenhands to get involved in their chapter by participating in contests, leadership roles and fund raisers. "Once you begin, you will realize all the benefits the FFA gives. Then you will want to give even more."

Annette Clark
Beal City, Michigan

Responses to Articles

I would like to learn more about the Work Experience Abroad program. I read about it in the June-July, 1986, issue of *The National FUTURE FARMER* magazine and heard about it from my advisor. I would appreciate it if you would send me more information.

Brad Kjeldahl
Belgrade, Minnesota

I saw the "Where in the World You Can Go" article in *The National FUTURE FARMER* magazine. I am very interested in traveling around the world. Please send me information about this program.

DeAnn Best
Boerne, Texas

In the June-July, 1986, issue of the magazine was an article concerning the FFA's involvement in the international exchange program. I am interested.

Laura Howard
Bloomfield, Kentucky

I read the article in the June-July issue of *The National FUTURE FARMER* called "Where in the World You Can Go." I'm interested in the one-year program for the summer of 1987. Please send more information.

Kim Zearfoss
Myerstown, Pennsylvania

I am writing in response to the article "Mechanically Inclined" in the April-May issue (page 16) of *The National FUTURE FARMER*. I agree with the article 100 percent. It's informative and keeps one up to date on the latest technology of agricultural mechanics.

The one paragraph that hit close to home for us was that of "image" problem. In our school the agriculture program is thought to be easy, that any student can go into the class and come out with a passing grade. As any agriculture student knows, we work just as hard, if not harder, to earn our grades.

Gerald Price
Hunlock Creek, Pennsylvania

Keep 'Em Coming

Please keep the Future Farmer magazine coming. I appreciate the things I learn from them.

James Bradshaw
Waterflow, New Mexico

Best Run Organization

At our annual awards banquet I heard teachers, students, parents and numerous others comment on "the best run organization at the high school."

Jaye Hickey
Kyle, Texas

Good Idea to Share

I am chairman of the DeForest FFA Chapter magazine committee. We go to hospitals and clinics to see if they have agricultural magazines. If they do not, we send them subscriptions (such as *The National FUTURE FARMER*) as a chapter project.

Wayne Thiele
DeForest, Wisconsin

This is a good public relations idea that other chapters might want to use. Gift subscriptions are $3.00 per year and can be ordered from the Circulation Department, P.O. Box 15160, Alexandria, VA 22309-0160.—Ed.

Software Help

I am a graduate from Texas. I have been in FFA all four years. My younger brothers are also coming along in the FFA. I would like to help them by ordering software on record keeping in vo-ag/FFA projects. Life would have been a lot easier if I had had a computer program to keep my records with.

Neal Moynahan
Houston, Texas

New Subscription

I have seen a few copies of the magazine through my friends. I go to a private school and not in FFA. My family farms and I hope to. I have been impressed with your magazine and would appreciate the opportunity to subscribe.

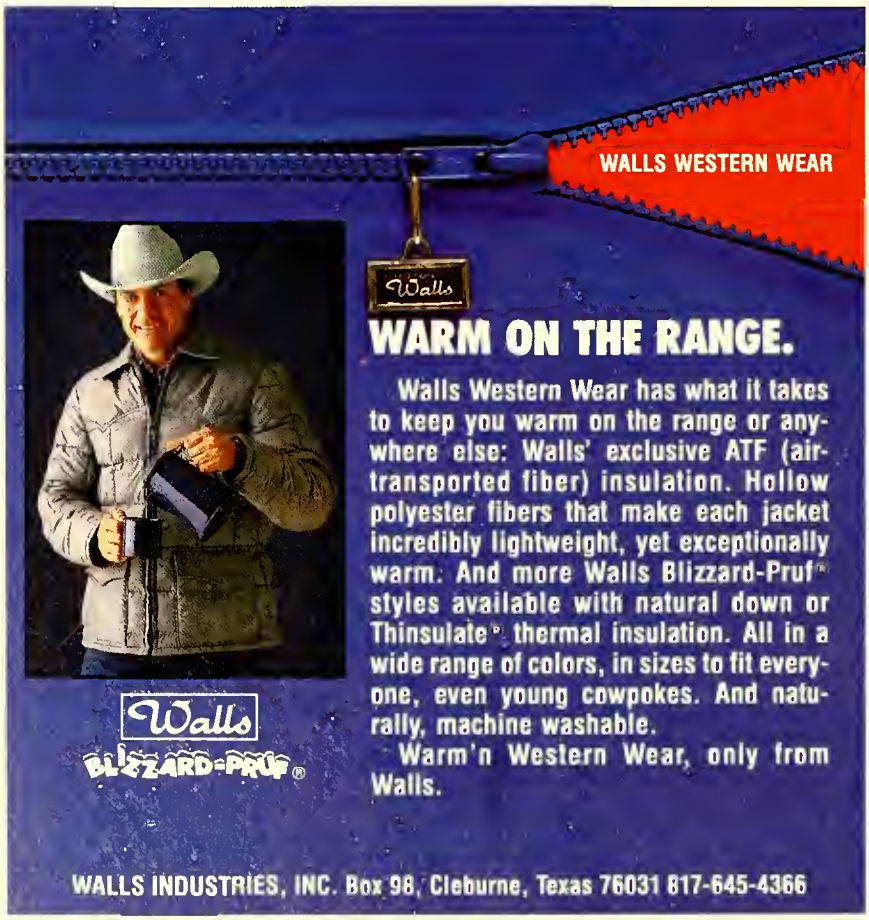
Henry Herndon
Bamberg, South Carolina

FFA Jacket Keepsake

I am a former member of the California, Missouri, FFA, (chapter president during 1952) and I still have my blue FFA jacket with my name on it. We have a farm which we have had for over 50 years.

William Seyfert
California, Missouri

Send letters or notes with name, address and chapter to: MAILBAG, The National FUTURE FARMER, P.O. Box 15160, Alexandria, VA 22309. All letters are subject to editing.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Agricultural biotechnology, including such mind-boggling sciences as genetic engineering, is advancing far faster than many people realize. Its impact will be profound. We need to be ready for the new . . .

High Tech Down on the Farm

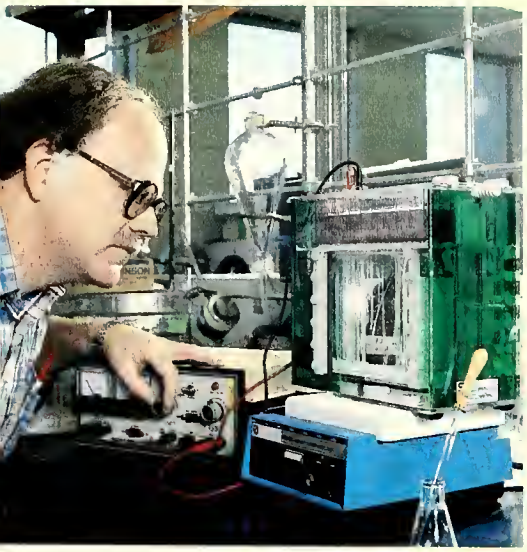


Photo by Iowa State University

By Bill Kelsey
Part 2

CHRONIC over-production of many crops, escalating production costs, over-supply of milk and buy-out of dairy herds, increasing competition from overseas producers—with all these problems, and more, besetting the agricultural industry today, it's natural to ask: Who needs a more advanced technology to increase productivity, to grow more grain, to produce more meat and milk?

The answer is: All of us. Firstly, you cannot hold back the progress of scientific evolution—the development of new technologies resulting from man's ever-inquiring mind is inevitable. Nothing is ever going to halt it. But, secondly, we must recognize that the technological developments we are seeing in agriculture today are—contrary to what many believe—an answer to some of our short-term problems, as well as an inevitable part of the industry's long-term future.

Many biotech innovations will improve our individual productivity, which will help our profitability. But also consider this: by the time this year's high school graduates are in their mid-forties, it is predicted, the world will have to feed a population 50 percent larger than that of 1986. At current production levels, food supplies are expected to fall short of demand soon after the turn of the century. That's alarmingly close.

It is essential that we find new ways of growing more crops and raising more stock. Experts agree that the only way we are going to achieve this is through biotechnology, including genetic engineering.

The exciting thing about biotech is that today's FFA members are going to be in the thick of it. They are going to grow as agricultural sciences grow. They are going to be the ones who put today's research into tomorrow's agricultural production. They are going to be leading the way—if they take full advantage of the opportunities the new technology will offer, by learning all they can and keeping fully up-to-date on developments.

Biotechnology is not the only or complete answer to agriculture's current problems, but it is one partial solution that has an amazing potential. The enormous extent of that potential is well recognized by many commercial organizations. As we saw in our last issue (June-July, 1986), companies are investing huge sums of money in biotech firms and laboratories of their own, staking their claim to a share of the market for agricultural biotechnology products which, it is estimated, will be worth as much as $100 billion by the turn of the century. That is in addition to the research at many universities, much of it funded by industry.

The Possibilities

So who is going to benefit from all this? We all will: we all need food to nourish us and fiber to shelter us. And the producer of that food and fiber will benefit directly.

Speaking at a forum on food and agriculture, Dr. John T. Marvel, general manager of the Research Division of Monsanto Agricultural Products Company, speculated this way: "...perhaps the development of a strain of wheat that grows well in the dry lands of the West without heavy irrigation, or a corn plant that fixes its own nitrogen, or soybean plants that have even higher protein, or don't need to be processed before animal consumption. Cattle may be developed that convert protein to meat with an efficiency only dreamed about today. The potential is awesome.

"These new technologies, like those of the past, will give American farmers the edge they need to remain the most productive in the world. But only because our farmers are early adopters—pioneers in the use of technology. These new technologies will substantially reduce the cost of producing food and fiber, while allowing farmers to continue to feed the people of this country and many millions more in our world."

The new wonder technologies in agriculture did not happen miraculously overnight. They are the result of many years of painstaking, often frustrating, research. Professor Walter Fehr, professor of agronomy, and also biotechnology coordinator at Iowa State University, said in a recent speech, "Biotechnology in agriculture can be viewed as a new marriage between the scientist in the laboratory and the scientist in the field. The productivity of the new union is only beginning to be realized. As the partners continue to develop individually and together, their contributions to agriculture will increase."

Just what are those contributions likely to be?

To determine which monoclonal antibodies should be selected for further experimentation, upper left, the scientist uses what is known as a slab gel electrophoresis apparatus. Researchers extract tissue, below, encourage the growth of plant cells and determine which cells show potential before regenerating the cells into whole plants.

Photo by United AgriSeeds, Inc.

Clones and Hormones

In livestock production, the application of biotechnology will have dramatic effect. Coming shortly are enzymes to allow feed to be digested more thoroughly, growth promoters to convert feed to animal protein more efficiently, vaccines to protect animal health more effectively, advanced artificial insemination techniques to improve animal genetic quality...these are just some of the areas engaging researchers' attention now.

Just think, each year about one-third of the pigs born never reach market weight, the broiler industry loses about 120 million birds before they reach market and about five million head of cattle are lost to disease. If these losses could be eliminated, profits would be boosted considerably.

Many areas of animal health are included in biotechnology research projects, both in academe and the private sector and we can expect to see some startling developments in this field soon. Bovine respiratory disease is the most costly disease in North American cattle—brucellosis, which causes abortion, has long been dreaded in the cattle industry. Both are subjects of biotechnology research at Iowa State University, where sub-vaccines are being developed which immunize against a specific component of a harmful organism rather than against the entire organism.

Brucellosis is also the target of a project at Oklahoma State University, where researchers are aiming for a less expensive and more effective, safe vaccine. So far they have succeeded in cloning the DNA of the agent that causes the disease and are now working on the actual cloning of DNA from the bacteria and introducing it into E.coli, which is a more common and easily handled bacterium.

For those animals that do grow to maturity, biotechnology—and specifically agrigenetics—are expected to greatly improve feed conversion. For example, the average dairy cow gives about 12,000 pounds of milk a year, but the best has produced well over 50,000 pounds.

It's been said that although dairymen realize that it will put some of them out of business, many of them "can't wait" to get their hands on the growth hormone, which will dramatically increase their milk output—an increase variously estimated at between 15 and 40 percent.

The reason, says Professor Robert J. Kalter, chairman of Cornell University's Department of Agricultural Economics, is that the bovine growth hormone, developed at Cornell, will cut production costs substantially for dairy farmers.

Compared with many technological advances of the past, the growth hormone is not capital intensive. Thus smaller operators will be able to afford to adopt new biotechnology products without incurring heavy debt loads.

"The principal ingredient for successful use of products like bovine growth hormone will be management ability," asserts Professor Kalter.

KIC

Iowa State University scientists this spring applied for patents on technology that they say has the potential to greatly increase profits for livestock producers and to improve the quality of animal products. It centers on a substance called KIC, which is one of several ketoacids that are derived from dietary protein and occur naturally in all animal tissues.

The product is expected to have many benefits—improve feed efficiency and increase growth in cattle, sheep, broilers and turkeys. Enhanced egg production, and milk and butterfat production in cattle are also claimed. Its developers say it appears to decrease cholesterol synthesis in several species—in egg yolks by 8 percent.

Also, preliminary studies in rats indicate that KIC can decrease cholesterol content in the walls of blood vessels by as much as 60 percent. The implications here for human health, as well as for agricultural economics, are obvious.

Photo by Brent McCown, University of Wisconsin

Genetically engineered poplar plants in a test for tolerance to glyphosate. The leaves on the left contain a glyphosate-tolerant gene; the pale leaves on the right do not.

Researchers found that another benefit was enhancement of immune systems in animals receiving KIC. But, naturally, there has to be a catch. Currently, KIC is available only as a research compound and it is very expensive, but production by a synthetic process using a by-product of corn wet milling is under investigation.

Developing Seeds

Biotechnologists are working hard to unlock the genetic secrets of plant life. As a result—the corn, bean, wheat and other plants of the future—will be hardier, more productive and more tolerant of harsh conditions.

Using genetic engineering technology alongside current techniques, scientists will be able to accelerate plant breeding and transfer desirable traits into crops—and do it faster and with a great deal more precision than in the past. In traditional cross breeding, all of the genetic information, both desired and undesired, from both plants is combined, even though the breeder may be trying to transfer a trait controlled by only one gene. Genetic engineering will permit the transfer of specific genes controlling specific traits.

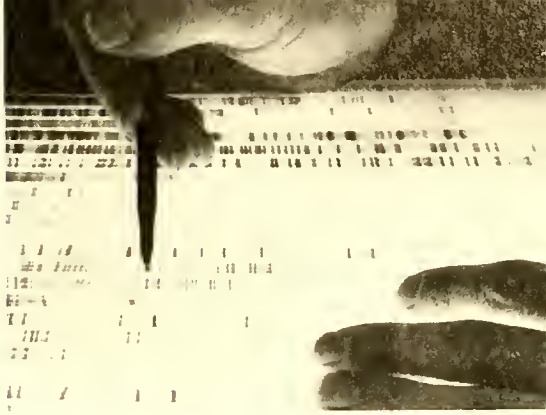


Photo by Mark Conkling, North Carolina State University.

Radioactivity and a light table help a scientist examine the genetic code in the DNA of a tobacco plant.

Fighting Weeds

There is still a long way for science to go, and many hurdles to cross, before genetically engineered crops are harvested in our fields. However, great strides have been made recently, particularly in the area of herbicide resistance. Already the first outdoor test has been sanctioned by the United States Department of Agriculture in the race among biotehnology seed and chemical companies to redesign the genetic code of seeds to create crop plants that can withstand herbicides.

The creation of herbicide resistance in plants has been impossible with conventional breeding techniques. So herbicides have traditionally been formulated to match the tolerance of a certain plant. Now, with the advent of genetic engineering, the reverse is true—plant characteristics can be arranged to fit the herbicide. All that is required is a single gene mutation.

The outdoor test is being run by Calgene Inc., of California. They are competing with Monsanto to develop plants that will be resistant to Monsanto's glyphosate herbicide product Roundup, which is one of the biggest-selling herbicides in the world. Calgene's field test will analyze a non-crop variety of tobacco plant that tolerates glyphosate. The company also plans to build herbicide resistance into several other species—tomatoes, cotton and poplar trees have been mentioned.

Herbicide resistance in plants should help reduce production costs, reduce the need for tillage, cutting soil erosion and the cost of energy, fertilizer and water. It could also help the problem of carryover, in which the chemical lingers in the

(Continued on Page 37)

18 Years of Country Music

An FFA member with exceptional talent looks toward a future career in music.

By Andrew Markwart

"I WAS used to playing before 200 people, and they made quite a bit of noise. But when you put 25,000 people in a place that size who are hollering and applauding, there is so much noise you can feel it—it almost deafens you. You couldn't hear yourself think."

That's how Jimmy Melton describes the feeling of performing onstage in Kansas City's Municipal Auditorium at the National FFA Convention. Jimmy may be the most qualified FFA member to explain that sensation; he has appeared onstage at the convention every year since 1981, and the crowd grows louder for him each time. That is, until he starts playing the banjo.

This 18-year-old from Henderson, Tennessee, is a professional country/bluegrass musician. He has recorded three albums, appeared at the Grand Ole Opry and is looking forward to a career as a singer, songwriter and accomplished instrumentalist.

Photos by Author

The front porch (above left) is a favorite practice spot for Jimmy Melton. Although his father, Fred, and mother, Cherry, own and operate the family western wear store (left), dad still finds plenty of time to practice with his son (above).

Although the banjo is still his favorite, Jimmy's talent spread to other stringed instruments. Besides the guitar (left) and banjo, he plays the mandolin, piano, fiddle (below), bass guitar, steel guitar, and dobro (right), which is an acoustic steel guitar played on the lap.

An Early Start

The attraction to music came very early for Jimmy, especially the banjo. "Back before I could even talk, they said that if a banjo would come on the radio or TV, I'd crawl in the room and listen to it," says Jimmy. "I've always had an ear for one, I guess."

Although he wanted a banjo, he actually started out playing the guitar. His older brother Don, and sister Lana, had shown interest in playing guitar, but their interest soon waned. So 9-year-old Jimmy decided to pick up one of the idle instruments and it took only a few months to persuade his parents, Fred and Cherry, that a banjo would be a sound investment.

Jimmy learned quickly on the banjo by listening to records by banjo greats such as Earl Scruggs (theme from "The Beverly Hillbillies") and practicing as often as he could.

He and his father practiced daily, and according to Jimmy, "I guess in about four or five years, we didn't miss a half-dozen nights. We played *every night*. Sometimes I'd play in the morning before I'd go to school, and then after school until supper. Then we'd play after supper, sometimes until it was time to go to bed. I'd go through a set of strings about every week."

New Album

Jimmy's success so far has been based on his excellent instrumental work, but he has recently added singing and songwriting to his repertoire of musical talent. His most recent album, "40 Years of Country Music," released earlier this year, bridges his songwriting with performances of songs written by country greats like Hank Williams, Sr.

The album's theme is centered around traditional, early country music, and you'll find it hard to distinguish Jimmy's five original songs from from their popular predecessors. There is a conscious and refreshing lack of busyness in these songs. They are simple, straightforward tunes that have you singing along after one listen, the way country music was originally meant to be.

Songwriting is a difficult artwork, and Jimmy's writing influences stem from experience and observation. "Along with personal experiences, I write a lot of what I see in other people," he says. "You can't watch yourself to see what you do, but you can watch other people to see how they react to everyday life. I write about how people's emotions affect them and how they would affect me if I were in that situation. There are songs all around you, it's just a matter of being creative enough to reach out and see that."

The Singer Speaks

The talent program at the national convention has given him a lot of exposure, but Jimmy says the FFA organization has provided him with much more. "If you're performing in front of people, you've got to say something between songs. I had always been pretty weak on that until I got in FFA. When you get done with a public speaking contest, they fire questions at you and that helps you keep alert and speak on just about any subject. It makes you quicker on your feet."

Public speaking helped Jimmy with more than just his stage presence. He served as one of Tennessee's 1985-86 state vice presidents with an officer team, he says, that became closest friends and who still meet regularly even though their term is over. At conferences, camps and seminars, Jimmy would take along a guitar or banjo and entertain those attending. He says his fellow officers were public relations experts when it came to promoting his mini-concert gatherings.

Jimmy credits his advisor, Roy Weaver, with encouraging him to pursue a musical career. "I never thought I'd go as far in music as I have, but my advisor saw some hope in me and discovered me," says Jimmy. "He's the one that pushed me a little and got me started." The proof is in black and white. Mr. Weaver wrote the liner notes explaining Jimmy's story for the back cover of "40 Years of Country Music," at Jimmy's request.

This young musician is determined to make his career writing and performing country songs. It is all he has ever wanted to do and Jimmy plans on working, dreaming and being patient until his time arrives.

"When I started school as a 6-year-old, I always said that I wasn't going to college, I was going to make music. I've held to that. I guess most kids at that age change their mind almost every day, but I stuck to it—and I plan on sticking to it—one way or the other. It may be ten more years before anything ever does develop out of it, but I'm going to hold to that until it does." •••

When it comes to his horses, whether it's showing or shoeing, close doesn't count for John Larsen.

The Total Horseman

By Mary Buschette

DID you ever buy a pair of shoes on "special" only to find they fell apart a week later? You get the feeling that they just don't make quality shoes the way they used to. But to see John Larsen shoe a horse, you realize he's a craftsman, proud of his work and the farrier tradition is in good hands.

In the early days of our country, the farrier was a vital part of a rural community, fully molding and shaping the metal shoes to fit horses' hooves. John, the 1985 national horse proficiency winner from Danube, Minnesota, carries on the trade.

As a farrier, John trims hooves, shoes horses and tries to correct any other leg and hoof problems. "One of the most important parts of the job is to be available at regular intervals because each horse has to be shoed every six to eight weeks." Visiting with his customers, he also has the opportunity to advertise his training business and horses available for sale.

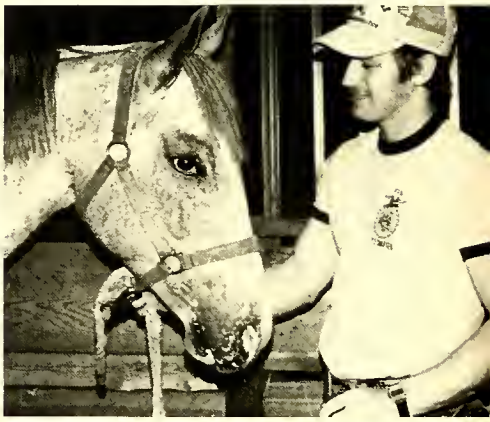
His business has grown at a rapid pace since he learned the farrier trade. In 1984, he was second in the farrier class at the University of Wisconsin-River Falls. John wasted no time in applying his newly acquired knowledge, beginning with three customers. Within two years he expanded to 125 customers who now rely on his services.

The added income from the farrier work has enabled him to purchase a 1/2-ton black Jeep pickup which he uses as his workshop on wheels, equipped with a supply of shoes, an anvil, a forge, medicines and other necessary equipment.

Family Tradition

Success in the horse business has become a tradition with the Larsen family. John's older brother Paul, a vocational agriculture instructor in Cottonwood, Minnesota, has been a strong influence in his life. They share a common interest in teaching agriculture and showing horses. Paul received second place in the Minnesota Horse proficiency area in 1979 and can offer advice based on his previous experiences. Showing in Western pleasure and halter events and training horses provide the motivation that keeps John involved in the business. He appreciates the challenge of meeting his brother's success—"I like to beat him!" says John. His younger sister Julie was the state horse proficiency winner in 1984.

Photos by Author



John breeds and shows Appaloosas.

For a 30" x 14" poster send $3.00 to: SUPERMAN POSTER, Justin Boot Co., P.O. Box 548, Fort Worth, Tx 76101

Quality training is essential to raising a star show horse. This is one of the most rewarding parts of owning horses for this proficiency winner. "I like to see where my work has paid off. After working hard all week, it's fun to go to the shows on Sunday and see our horses do well," says John.

He was already the proud owner of his first pony at the ripe age of three. His training and showing career began with the purchase of an Appaloosa when he was old enough to join 4-H. As a Greenhand in the FFA, John owned five horses and received the chapter horse proficiency award. He now owns seven horses—five Appaloosas and two Quarter Horses. Together with his brother and father, they have 23 horses on the farm.

He has been a partner in the Little Wagon Appaloosa Farm for four years, along with Paul and his father Gene. While all three own horses, Paul and John do all of the showing. They attend exhibitions throughout the United States and Canada every weekend from May through September.

John grew up on a crop, beef and dairy farm in the central part of Minnesota near the Minnesota River Valley. He helped his father with the field work until he expanded his horse enterprise. "I like working with horses. I can talk to them and they don't talk back," says John with a smile.

John tailors each shoe precisely.

Record keeping is the most important management skill he has learned through this experience. John credits his high school FFA Advisor David Levine for helping to set up a record system. "It's really important to maintain records so I know which horses are the best."

John was a member of the 212 FFA Chapter. He served as chapter president during his senior year. He also participated in wrestling and football. He continues to maintain his involvement with the FFA. As a member of the FFA Alumni he helps the local FFA chapter with judging proficiency records and with the FFA horse show, which his brother Paul helped organize in 1977. The participation in the 212 FFA Horse Show has grown from about 50 to more than 160 entries, making it one of the largest horse shows in the area.

John recognizes that a college education is important since it opens the way to many more opportunities in his chosen field. He completed one year of school at South Dakota State University majoring in agricultural education. After taking a one-year leave, he plans to return to school this fall. During the winter months, work with the horses is not so demanding. Therefore, he can do farrier work on the weekends while home from school.

Setting goals is something in which John believes very strongly. This ambitious young man likes to think big. As a senior in high school, he decided that he wanted to earn the national proficiency award. Within ten years he would like to raise a world champion Appaloosa show horse. He is well on his way. In 1974, one of his stallions, Jokers Red Roper, was rated one of the top ten in the nation as a two-year-old. His ultimate dream is to be a world recognized horse trainer.

If the shoe fits.... •••

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The Team Behind the Scenes

By Lawinna McGary

Speeches and spotlights are an exciting part of the national officers' job, but much of their time is spent preparing for their year of challenges.

BEFORE the national convention stage lights have dimmed, the newly installed 1985-86 national officers are measured to fit their new jackets. The following week Rick Malir, Coby Shorter, Kevin Coffman, Robert Weaver, Cindy Blair, and Kip Godwin zip up those nearly identical blue and gold symbols of FFA. Ahead lay the challenge of blending their unique personalities into one FFA team.

Why do they do it? "To tell the story of FFA to people of all backgrounds," says Cindy, western region vice president. "You get the chance to tell what FFA has done for you and what it can do for others." Kevin, central region vice president, adds that they can also, "share with people about their career opportunities in agriculture."

Telling the Story

But telling about FFA and vocational agriculture is not as simple as it may seem. "One day I may be touring a farm project in jeans and tennis shoes, and two days later be in a business meeting in New York City. That's what makes it enjoyable," says Rick, president.

The national officers quickly learn to adapt. After a brief two weeks to tie up loose ends at home, they meet at the National FFA Center for a two-week orientation session in which they become familiar with FFA staff and procedures. Time is of the essence.

The team is together only 10-12 weeks out of the year. Though most of their time is spent traveling alone, they share a close bond because of their unique experiences. "There are only five other individuals who can really understand what your year was like," says Cindy.

To begin the year, the team ran the Missouri Greenhand Motivational Conferences, January 6-10. After one day of planning, the officers boarded two chartered planes and began their grueling schedule. Mornings were filled with flying to a site, setting up, and presenting a three hour seminar. Less than five hours later, the officers are in the air again flying to their afternoon conference site. With this demanding schedule, you would think the national officers would get run down. Not so, says Cindy, "We draw our energy from Greenhands and FFA members."

Explaining FFA to those not as familiar with the organization is also an important part of the national officers' job. "The business and industry tour is one of the best ways we can tell our story," says Kevin. During the business tours, the national officers pair-up and divide into three teams that travel to different locations. "We do this to learn more about business and industry related to agriculture, and to promote vo-ag and FFA to leaders in agriculture," says Kip, eastern region vice president. The officers also travel to Japan to visit businesses in January and visit even more industrial sites in the spring.

Along with state FFA officials, vo-ag teachers, United States Department of Education officials and the National FFA Advisor, the six national officers have a unique opportunity to help make policy decisions for FFA. "We bring the membership's views into play at the board meetings. The members are represented," says Kip.

And, of course, there are always state conventions, chapter visits and banquets, state visits, Washington Conference Program speeches, running the National Leadership Conferences for State Officers and taking part in other local, state and national activities.

Each officer attends at least seven state conventions, and visits approximately 20 chapters. They will travel an average of 200,000 miles and most are home no more than four days a month.

These brief jaunts home often turn out to be as much work as travelling. "I get less sleep at home than on the road," says Coby. There are bills to be paid, "thank you's" to be sent, laundry to clean, letters to be typed, travel arrangements to be made, and sleep to be caught up on. It is also a time for keeping in touch with new friends. "My first month I was in office I wrote 350 personal letters to Greenhands," says Cindy.

Family Ties

Family support is crucial. After each national officer receives a cash advance to set up a bank account for purchasing airline tickets, meals, hotel accommodations, etc., someone has to keep track of the bills. Family members are also often called upon to be a phone answering service, and to serve as a personal secretary. Mrs. Joyce Weaver feels that the time she spends helping Robert is no inconvenience. "We just try to support him in anything he does," says Joyce.

Family members also help keep tabs on the money allotted to each officer for official dress, supplies and other travelling expenses. The officers go through two to three sets of luggage during the year, and wear out one FFA jacket every two months. When Rick taps the gavel for the final time, it will have taken a lot of family support and a considerable amount of money to keep the national officers on the road and looking sharp.

Rick, Coby, Kevin, Robert, Cindy and Kip faced challenges in a year that most people will never encounter. "It takes a lot of mental and physical preparation, but we're regular people," says Coby. Kip agrees, "The national officers started out as Greenhand members, just as everybody else does." Robert adds, "I'm just an ordinary guy that was willing to listen." •••

The Mystery of Potomac Horse Fever

Major breakthroughs are providing answers to this new horse disease, but the carrier and a vaccine still allude researchers.

POTOMAC Horse Fever, a disease that was first recognized in horses living on the banks of the Potomac River in Maryland, is now affecting horses of all ages and breeds across the country.

Since it was identified in 1979, veterinarians and other scientests have been able to solve some of the mysteries of this disease, but it is far from being fully understood.

Symptoms

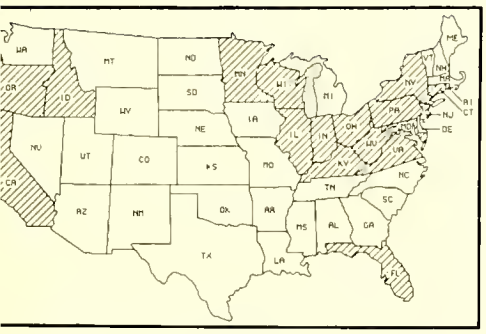
The symptoms of Potomac Horse Fever (PHF) and the pattern in which they occur have been isolated. First, horses usually become anorexic, refusing food. A high fever (102-107 degrees) follows and soon after the horse becomes depressed. This is followed by abdominal pain and a severe life-threatening diarrhea. The horse may also develop prominent blood vessels on the eyeball and intestinal sounds usually heard may decrease.

Often times, lamintitis—a separation of the hoof from the rest of the foot—occurs and it usually becomes necessary to dispose of the horse at that point. Lamintitis is responsible for most of the deaths involved in PHF. If the horse does not contract lamintitis, it can recover fully.

It has been difficult to diagnose a horse for PHF because the symptoms do not always occur in the order above and other diseases, such as salmonellosis, have many of the same symptoms.

Identifying PHF correctly is vital when administering treatment to the horse. If the recommended drug for PHF, oxytetracycline, is given to a horse that does not have the disease, it may irritate salmonellosis or cause other intestinal problems.

The disease is caused by a microrganism *Ehrilichia risticii*, which is slightly larger than bacteria. The organism travels through the blood system to the colon where it causes the irritation and sickens the horse.



Canada and 17 states including Ohio, Pennsylvania, West Virginia, Virginia, Maryland, New Jersey, Illinois, New York, Wisconsin, Idaho, Minnesota, Kentucky, Connecticut, Indiana, Florida, Oregon and California have reported cases of Potomac Horse Fever. Dr. Whitlock attributes the reports to more accurate diagnosis rather than a further spreading of the disease.

A New Test

A major research breakthrough has been the development of a rapid diagnostic test that can be performed on the farm or ranch. A key factor in combating PHF is diagnosing it early. The horse owner plays a major role in keeping alert for any of the possible symptoms, according to Dr. Robert H. Whitlock, School of Veterinary Medicine, University of Pennsylvania, and a leading PHF researcher.

Dr. Whitlock says the success of the new test "will be dependent on the owners recognizing the symptoms and contacting their veterinarian so the test can be given. The longer Potomac Horse Fever goes untreated, the harder it is to tackle." He predicts a vaccine to be developed within two to four years, based on the rate and amount of knowledge gained over the past few years.

A major stumbling block in PHF research has been the inability to locate the carrier that spreads the disease. Tests have proven that an infected horse cannot transfer PHF by coming in contact with a healthy horse.

Ticks, specifically the American Brown Dog tick, was thought to be the carrier at one point because they are known to transmit microrganisms like *Ehrilichia risticii*, but tests have proven the ticks innocent thus far. Just for insurance, scientests are advocating tick and insect control in the horse's environment to help reduce possible exposure.

The new Potomac Horse Fever Test Kit has made on-site diagnosis possible, a breakthrough which may save many horses. Funding for the development of the test and other research projects have come from the Morris Animal Foundation.

One common factor in PHF is that most cases usually occur near a large river and it tributaries. Outbreaks of PHF are also seasonal, with first cases occuring in May and a peak period in July and August. A few cases have been reported after October. It also tends to be sporatic and not "sweep" across the country. These important clues are being studied by PHF researchers who are trying to isolate the carrier.

Until the carrier is singled out and a vaccine has been developed, all horse owners are advised to monitor their horses' daily temperatures, appetite and activity closely. Any notable change should be reported to the attending veterinarian. •••

What's New In
WESTERN WEAR

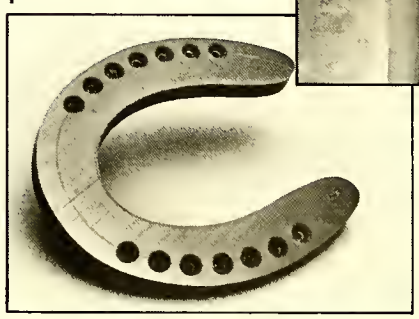
A Bailey's new "Laredo" silver mist beaver felt hat has 6-inch crown, eyelets and 4-inch brim. Contrasting sueded leather hatband features a genuine Montana Silversmith's concho and is handfitted with a Roan leather sweatband for long wear and comfort.

B The lady is wearing all the latest styles from the Kenny Rogers Western Collection, including a 100% wool suit with coordinated lambsuede pocket trim by Sidran, hat by Stetson and pinpoint oxford shirt by Karman. The boots by America's Bootmaker.

C This polyester/cotton/silk and wool sports coat from the Kenny Rogers Western Collection by Circle S makes the most of the natural color background by adding light brown and light blue deco colors for a vertical effect. The single peaked yoke's front and back focus toward stitched arrowheads.

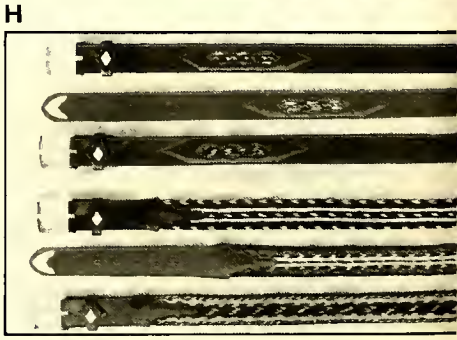
D This authentic Roper Boot from J. Chisholm by America's Bootmaker, offers fully welted top-grade Oak Bend leather outsoles and cream cow linings.

E This Pioneer Wear classic contemporary sports coat is 30½ inches long and is of a poly-wool combination for long and comfortable wear. Quality suede split cowhide elbow patches offset the tweed pattern of the coat, which is acetate lined and features a single seat vent.



F Adams Equipment introduces their remarkable new Natural Lite Horseshoes. Lightweight, abrasion-resistant and shock-absorbent, they essentially eliminate the known shortcomings of conventional horseshoes. Only one-eighth the weight of regular steel shoes, Natural Lite has 20 times the abrasion resistance, reducing concussion and shock to the horse's feet and legs on hard surfaces up to 80% as compared to steel shoes.

G Here are two new cows with a different look from Tony Lama. Left to right, a Natural Cow, foot and 14-inch top with a fancy scallop heads the list for "dressy" cowhides and a rich-looking



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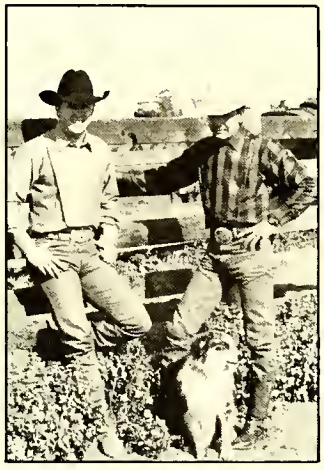

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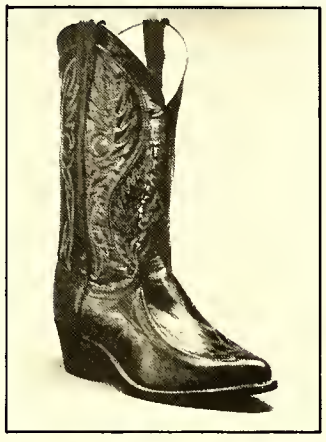

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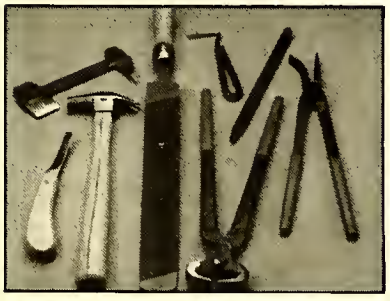


Mahogany Cowhide boot, foot and 13-inch top. If you prefer a rugged exotic, there's the Honey Elephant with an up-dated stitch pattern. All three pairs of boots come with matching belts.

H From out of the past, with a subtle touch of fashionable silver, Tony Lama Leather Products brings back the genuine horse hair belt. Available in a broad selection of colors for both men and women, these belts are sure to be a popular fall accessory. Shown: 1½-inch horse hair belts with smooth leather buckle and billet pieces and silver-tone trim.

I This 13-inch Gray Full Quill Ostrich from Panhandle Slim features a deep scallop in the matching soft gray kid top and has notched blazes on each side and a repeat of the vamp tongue design on the counter of the boot.

J Wall's new Cheyenne Jacket offers a new western-style jacket's blend of a lustrous, water-repellent antron nylon outershell and unique air-transported fiber (AIF) insulation of Hollofil II, making it one of Wall's best choices for early fall weather.

K Two of Abilene's fastest selling and most popular boots are their 13-inch genuine grey sharkskin and their 13-inch grey leather. Both of these top quality all leather boots have grey shafts.

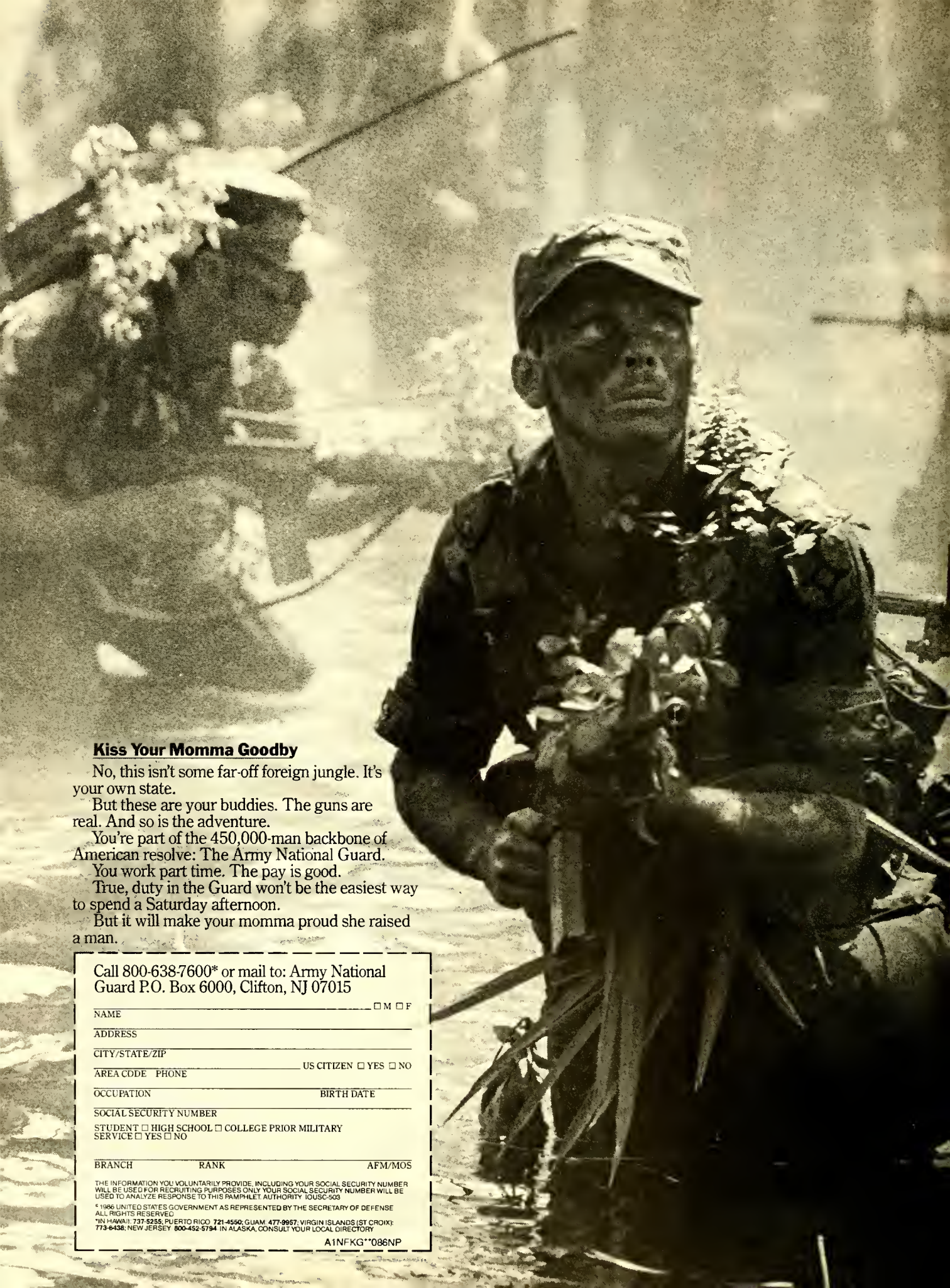
L Levi's Westernwear introduces the new Levi's 557 For Cowboys jean as part of its fall '86 collection. An authentic cowboy jean, the 100% cotton, indigo denim 557 is cut full through the seat and thighs, has higher placed back pockets and smooth domed rivets. The jean is matched here with a poly/cotton plaid western shirt from Levi's Shirts.

M Bibs are in . . . and Panhandle Slim has them in these new fall stylings of men's Western shirts. At left, a 100% cotton chambray, with snaps, in medium blue or black; at right, a bib front styling in buffalo plaid of 65/35 polyester and cotton, available in royal blue/black, taupe/black and red/black.

N This Laredo Boot features a brown cowhide foot with a 12-inch deep dip brown glove urethane shaft. This foot features the popular and fashionable aircord moc-toe and includes a glove lining, riding heel and #2 toe.

O Lexol Conditioner is unmatched in the way it keeps old or new leather soft and supple, while maintaining its strength, durability and utility. Microscopically fine oil droplets in Lexol's unique emulsion are readily absorbed, actually bonding themselves to the fibers to nourish and revitalize the leather while protecting against seepage into adjacent materials.

P A complete professional Farrier's Kit is available from Modern Farm.



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OCCUPATION _____ BIRTH DATE _____

SOCIAL SECURITY NUMBER _____

STUDENT ☐ HIGH SCHOOL ☐ COLLEGE PRIOR MILITARY SERVICE ☐ YES ☐ NO

BRANCH _____ RANK _____ AFM/MOS _____

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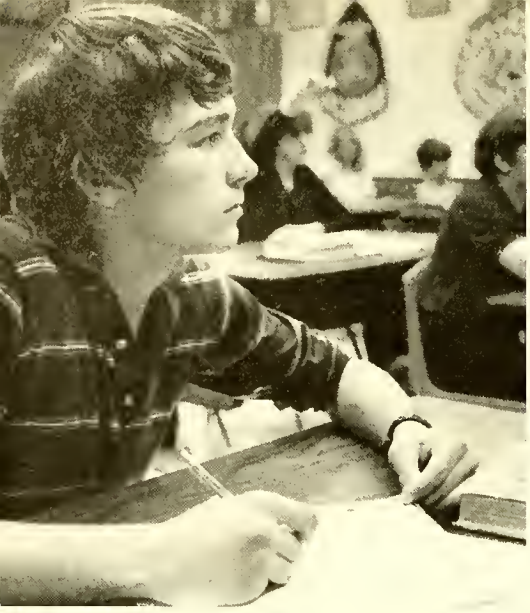

College and Vo-Ag—Can You Have Both?

Tighter high school graduation and college entrance requirements may make it tougher to take the courses you need and still take vo-ag. Here's a look at the challenges—and some possible solutions.

By Michael Wilson

Greg, a soon-to-be high school freshman, was excited about signing up for his first high school classes. He planned to take a vocational agriculture course along with the math, science and English classes he might need if he attended college someday.

After all, Greg grew up on a farm—and although he wasn't sure if he wanted to farm for a living, he sure didn't want to miss out on FFA and all the good things that go with it. Besides, Greg's big brother had been chapter president. His dad made State Farmer. Greg wanted to follow in their footsteps.

But Greg isn't so sure he'll be able to follow in anyone's footsteps, now. When he told the high school guidance counselor he wanted to take both the freshman vo-ag class and the required college-prep classes, the counselor began to shake his head.

"You can't take all those classes and still take vo-ag," he was told. "You must pick one or the other, vo-ag or college-prep. What's it going to be?"

THE story above is fictional, but the circumstances have become alarmingly common. Everywhere you turn, high school students face stiffer graduation and college entrance requirements.

At worst, the trend may drive the final nail in the coffin for many shrinking vo-ag departments. At best, it could limit your options and make it more difficult to take vo-ag classes.

As a result of these changes, some of our brightest FFA members—those who plan to attend college some day—may no longer have time to take vo-ag because of higher math, science, English and foreign language requirements needed to enter college.

Of less impact is a new push to raise high school graduation requirements. This trend affects all high school students, especially those in smaller, less wealthy schools. For example, some of these schools do not have adequate budgets to hire full time foreign language teachers. In some cases, students must be bussed to another school. Some schools may consolidate.

The new standards result from the "Back to basics" movement that began over three years ago. Only recently have many states begun enforcing new guidelines. The new guidelines come at a time when many vo-ag departments already face declining enrollments and, in some cases, extinction.

Happily, most college-bound FFA members are still able to squeeze vo-ag into their class schedule. But the requirement changes have forced some decisions to be made early.

"I don't think students should have to decide if they're going to college when they are 14 or 15 years old," says Blannie Bowen, associate professor of agricultural education at the Ohio State University. "I don't think they've had enough experiences to make that decision yet."

Bowen is familiar with that scenario. He's a former FFA state officer and American Farmer recipient from North Carolina, and one of many vo-ag students who has also gone on to college.

Like other universities, Bowen says OSU recently increased its enrollment requirements. "It's definitely having an impact on vo-ag programs in Ohio," he says. "We're finding that some students simply do not have enough time to take vo-ag and still graduate, or take the required college-prep courses if they want to go to college, too."

Still others have not yet seen any impact from new requirements. Donald Lyness, a guidance counselor at North Linn High School in Iowa, says stricter college entrance requirements have been put in place in his state. "But there really isn't any conflict yet," he adds. "I don't find any problem with students taking both vo-ag and college prep courses."

North Linn, located 25 miles north of Cedar Rapids, is a farm community where many high school graduates (including FFA members) go on to college.

Photos by Bill Stagg

Unlike many counselors, Lyness often recommends vo-ag course work to college-bound students.

"Some of the courses I would normally recommend to college-bound students, like speech class, are well taken care of in vo-ag," he says. "Students can easily get that speech experience through FFA. The same is true in accounting class. You get a great deal of record keeping in vo-ag."

Limited Choices

However, Lyness says taking both college prep and vo-ag may mean some sacrifices. You may not be able to take every elective you are interested in. You may need to give up a study period or two. "I wouldn't say it's real easy for them," he says. "But it's no different for any other student. Band and chorus students who also want to take all these other courses need to make some tough decisions too."

Where Lyness does see conflicts are with students who want experience in several areas: physics, biology, accounting and writing courses, for example. "It's just about impossible to work all that in and also work vo-ag into your course schedule too," he says.

But not all guidance counselors are as informed about vo-ag as Lyness. The on-going farm crisis may cause many counselors to discourage vo-ag enrollment. Lyness says, "I don't see any counselors coming right out and saying that, but I suspect some of them, even in rural communities, don't push vo-ag. That can kill a course, in time."

Opportunities Still Exist

Lyness says, "We need to try to convince those students that there are other areas in agriculture you can still get into, such as agronomy, animal science, ag journalism, or ag sales. A lot of those areas are expriencing big demand. But changing their minds about it is another problem."

Bowen says vo-ag curriculum should expand to highlight the fact that opportunities still exist in agriculture. "If we do not broaden vo-ag, there is no way that we can attract the caliber of students we want," he says.

It's no surprise, then, that many new award programs and contests provided by the national FFA have less emphasis on production agriculture, and more on marketing, sales and other agribusiness skills. The two-year-old "Computers in Agriculture" award appeals to a unique type of FFA member.

"There's no question in my mind that this has had an impact on the quality of students interested in vo-ag," says Bowen. "These students are different from traditional vo-ag students.

The best short-term solution may be to simply promote vo-ag programs more, both in and out of school. "We need to re-educate some guidance counselors," Bowen says.

These students talk about concepts in high level grain marketing. I feel certain many of these students wouldn't be in FFA were it not for programs like Computers in Agriculture."

Future Solutions

But long-term, nationwide changes in vo-ag curriculum will very likely be slow in coming. Meanwhile, many state vo-ag leaders are looking for ways to minimize the impact of graduation or college entrance requirements on their existing vo-ag departments.

In Illinois, for example, one piece of legislation would allow vo-ag students to receive college-prep credit by replacing a basic math or science course with a new "vocational math" or "vocational science" course. Some states are currently experimenting with similar adjustments.

Bowen says other solutions may include increasing the number of class hours per day. But that may cause some schools to lose funding.

The best short-term solution may be to simply promote vo-ag programs more, both in and out of school. "We need to re-educate some guidance counselors," Bowen says. "We need to show them that vo-ag is a product worth promoting, that it's up to date, and modern. First, we must make sure we have a quality product."

Don Lyness agrees. "I think people are going to have to get out and do some salesmanship on what you can do in vo-ag. If the demand is there and people really want it, vo-ag will continue to be strong."

North Linn Chapter officers, along with vo-ag instructor Joe Yedlik, begin recruiting freshmen vo-ag students in the spring, before they enroll in high school. He says such recruitment is critical in light of the poor farm economy.

"We have all these rural kids who like farming, but they're really discouraged. It makes sense to talk to them about an area they really like. It give the officers a chance to let students know there are still good opportunities in agriculture outside of farming," says Lyness. •••

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News, Notes, and Nonsense from Everywhere

Chapter Scoop

by Jack Pitzer

A new Alumni affiliate organized at *Strother,* OK, has 21 members. The affiliate will send two chapter members to Oklahoma's FFA Alumni Camp.

N-N-N

The FFA and the Alumni at *New Lexington,* OH, sponsored a truck pull at the county fair grounds and made about $3,000. Drivers from all over Ohio, West Virginia and Indiana came to compete.

N-N-N

There were 171 guests at the *Cuba,* IL, Chapter banquet according to **Landon Miller,** reporter.

N-N-N

An *Eastern Brown County,* OH, FFA safety team certified 278 hunters and 30 trappers. The team consists of **Advisor Ogden** and six chapter members.

N-N-N

Greenhand initiation for *Millsap,* TX, Chapter is a Greenhand olympics including sack races, egg toss, tire-rolling race, goat milking, cow-chip throw, arm-and-leg wrestling, tug-of-war and a greased-pig chase.

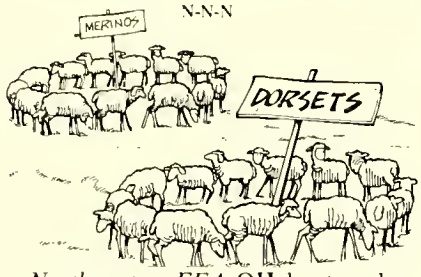
N-N-N

FFA at *Woodburn,* OR, offered a tractor driving course for members and other high school students. The course included an obstacle course, balancing a tractor on a trailer, a cultivator course and pallet loading.

N-N-N

Four members of the *Glide,* OR, Chapter attended a sheep shearing school held for FFA members in their county.

N-N-N



Northwestern FFA, OH, has two sheep chains—one of Merinos and one, Dorsets.

N-N-N

A department of natural resources officer came to help supervise the *Grand Valley,* OH, tree-planting project. They purchased 1,500 trees to plant on their 40-acre land lab.

N-N-N

Suzie Luebke of *Genoa,* OH, FFA is going to Austria on a Work Experience Abroad (WEA) program through the National FFA. Her chapter voted $200 to help her make the trip. If you want to go on an international travel experience contact the National FFA International Department.

N-N-N

Chapter officers **Dawn Gerdeman** and **Molly Foster** rode their horses in the *Whitehouse,* OH, Cherry Fest Parade to carry the U.S. and FFA flags.

The sixth annual 45-mile bike ride was organized by *Colton,* CA, FFA from Chino to Balboa Beach. There was a barbecue waiting at the end for 25 members who participated. There were six flat tires en route.

N-N-N

For the *McKay,* OR, banquet members barbecued 60 fryers.

N-N-N

Freshmen and sophomore members of the *State College,* PA, FFA provided refreshments for the election of officers meeting this spring.

N-N-N

Oak Harbor, OH, FFA donated a pig to the greased pig contest for their county fair as part of their community involvement.

N-N-N

For the well-attended banquet of the *Royal City,* WA, Chapter members prepared 240 pounds of barbecued beef.

N-N-N

Central Heights, KS, held a fishing derby as a summer meeting activity.

N-N-N

The chapter FFA queen and runner-up are recognized during the annual banquet of *Lakota,* OH, FFA.

N-N-N

Crestview, OH, used a cheese identification contest to attract new members for next year's enrollment in ag. It was held during the lunch periods of school.

N-N-N

That chapter also voted to donate $1 per member to the Statue of Liberty fund drive. Your chapter should think of doing the same.

N-N-N

Brad McDougal and **Dwayne Reiley** took state president **Aaron Alejandro** fishing when he visited their *Sequin,* TX, Chapter. And he caught the biggest fish while everyone else had to tell fish stories.

N-N-N

Members of the *Medelia,* MN, Chapter will help their community host a state hand corn husking contest. There will be 40 or more competitors. The FFA members will help with contest operation and direct traffic.

N-N-N

New "Welcome to *Brookville,* IN," signs were made by the FFA.

The 8,000-point award is the biggie in *Sutter,* CA, FFA. They have a point system and then those who earn 4,000 points are given special awards. But those who earn 8,000 points are called super-workers and given recognition.

N-N-N

Good luck to all the new officer teams in chapters out there. Many chapter reporters sent in news about your election but you can imagine it would be about impossible to run the names of all the new chapter officers of over 8,000 chapters.

N-N-N

Eagle Point, OR, FFA members brought their steers to be weighed, tattooed and graded at a county field day.

N-N-N

East Carter, KY, Chapter has a combined FFA-FHA picnic each year. FFA gets the place, hayride and drinks.

N-N-N

Evergreen, OH, FFA collected aluminum cans, crushed and stacked them and sold them to raise $125 for the Ohio FFA center at the state fairgrounds.

N-N-N

Via the Ag Ed Network came news from *Tipton,* IN, Chapter's participation in the National Land, Pasture and Range Judging contest in Oklahoma.

N-N-N

Eureka, KS, reporter **Tonya Harber,** sent word that the chapter is following up on farmers who were given the "Brand 'Em to Save A Life" sticker to be certain they are used.

N-N-N

Another new Alumni Affiliate was started for *Earl C. Baity* Chapter in North Harford, MD.

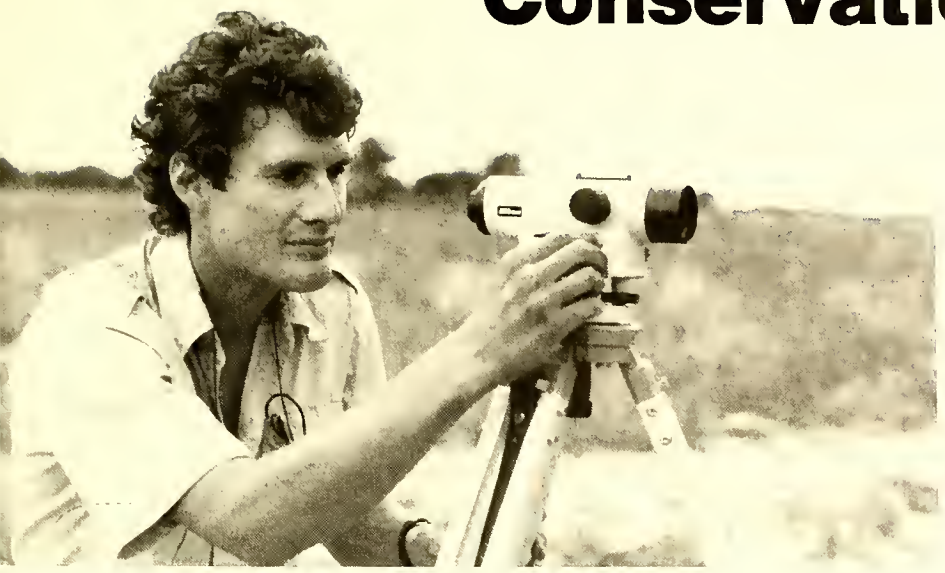
N-N-N

Prospective students at *W. B. Saul* FFA in Philadelphia, PA, are invited to a demonstration day each spring. Prospects visit classes, then participate in games and activities and witness demonstrations by members.

N-N-N

Where have all the reporters gone from Texas, Illinois, Alabama, North and South Dakota, Tennessee, Arkansas, Mississippi, Missouri, Indiana, Wisconsin, New York, Michigan, North and South Carolina, New Jersey, Vermont and Hawaii? Let's hear from some of those chapters.

Conservation Districts



50 Years of Soil and Water Stewardship

By Art Greenberg

Not too many years after FFA was founded in 1928, Congress declared soil and water conservation and wise land use a national policy and, in 1935, created the Soil Conservation Service as part of the U.S. Department of Agriculture. Soon afterward the Secretary of Agriculture felt that participation from local farmers and ranchers was needed for planning and operating local conservation programs.

So, in 1937, the President wrote all the state governors, recommending state legislation allowing landowners to form soil and water conservation districts (SWCDs). These self-governing districts are legal subdivisions of state government, voluntarily organized by local citizens, working to conserve our nation's soil and water resources.

Like FFA, conservation districts are organized in all 50 states, D.C., Puerto Rico and the Virgin Islands. Usually five locally elected supervisors serve for four years on 2,940 district boards—one for nearly every county in the country. Many districts employ technicians or clerks to supplement the U.S. Soil Conservation Service (SCS) staff that provides the technical assistance required by the various agreed upon conservation programs.

Clearly, a close partnership exists between SWCDs, SCS and other natural resource management agencies. Their mutual conservation programs benefit everyone.

The majority of conservation districts' efforts are technical assistance, which largely involves conservation planning and practice application. Some examples of conservation practices are conservation tillage, contour farming, cover crops, field borders, grassed waterways, pasture and hayland management, ponds, stripcropping, surface and subsurface drainage, terraces and woodland management.

What these practices, and others not listed above, have in common is that they prepare the land to better deal with air and water erosion. Rains (which carry unprotected soil to ditches, streams and lakes) and winds (which lift unprotected soil to feed clouds of silt) remove topsoil from where it is needed to produce crops and feed livestock.

Numerous studies show that continued soil erosion significantly reduces farm yields and profits. Subsoil is not the place to farm. Conservation districts assist in slowing soil erosion and all of its side effects.

The National Association of Conservation Districts (NACD) represents and provides services to the nearly 3,000 local soil and water conservation districts. NACD encourages FFA to become involved with SWCDs in joint projects providing education, leadership and resource conservation benefits.

Photos by NACD

Sheet, rill and gully erosion are too frequently a problem on unprotected, sloping land used for crops and pasture.

FFA members and advisors are most welcome to attend district meetings and discuss their program and project needs. The variety of district activities should provide a wealth of potential FFA projects, using the district board as advisors and the staff for practical assistance.

So why not attend the next conservation district board meeting in your county? You have nothing to lose but your soil. •••

Pamphlet Packets

A special packet has been prepared to fill requests from FFA chapters (one per chapter, please). The packet contains the following pamphlets: "Who We Are," "America's Conservation Districts," "A District Program For Youth" and "Guide to Conservation Careers." For further information, give your name, address and chapter name, and write to:

Conservation Districts Foundation
P.O. Box 776
League City, TX 77573

Bringing Back the Wildlife

Stanley Clarke balances hunting with smart conservation practices and helps repopulate his community with deer and other wildlife.

It should come as no surprise that some of the most devoted wildlife conservationists are also avid hunters. Such is the case with Stanley Clarke, FFA southern region wildlife proficiency winner from Delta, Alabama.

Besides hunting, Stanley has been fishing and trapping as far back as he can remember, so he feels right at home working with any kind of wildlife. And his home, nestled in the thickly wooded Talladega Mountians, is the perfect setting for his fish, fowl and game projects.

When Stanley was young, he would hear stories of big, plentiful deer and turkeys, but there were none to be seen, or hunted, that he could see. He admits it was the sport that got him started in wildlife conservation. "Hunting got me interested in it," says Stanley, "I started seeing what the wildlife needed and how that would increase the population."

What the wildlife needed was proper food, shelter and protection so they could become healthier and multiply. By the time Stanley enrolled in vo-ag as a freshman in Lineville High School, he was working side-by-side with his father, Ernest (known to everyone as Sonny), to bring the wildlife back.

Stanley put his conservation plan together with his dad's advice, information from the county extention office, and with what he was learning in vo-ag class from his instructor, Lamar Dewberry.

He started out by identifying what type of habitat each animal needed in which to thrive. Stanley cleared runways and circular areas in the woods for the deer to roam. For the quail, turkeys and rabbits he piled large hedgerows, which provided them a place to hide from predators like fox and coyotes.

Wood ducks needed shelter in the trees near local lakes, so Stanley built duck boxes in the vo-ag shop and hung them in carefully selected trees. On the waterline of those same lakes, he planted red cedar trees whose roots make excellent hiding places for fish.

Once the proper habitat was established, Stanley studied the diets of each animal and began a year-round feeding program. In the cleared areas of the woods, he planted peas, ryegrass and pencilcob corn,—which easily falls off the ear—for the deer and turkeys. Winter wheat, vetch and grain sorghum were planted late in the year so the game would have an ample food supply during the winter.

Poaching and uncontrolled hunting had been a major problem in Stanley's area, adding dramatically to the scant game population. All of Stanley's habitat and food program work would have been useless unless he kept hunters from excessively thinning out the game. He posted "no hunting" signs in all of his project areas; and he enforced those warnings, especially on hunters using dogs who run deer to exhaustion.

Stanley's answer to this problem was setting live dog traps to capture the hunting dogs and wild dogs, who had gotten lost on a hunt and left behind in the wild to fend for themselves. When the hunting dog owners came to claim a lost dog, they received a warning and a stiff lecture from Stanley and his father about wildlife abuse.

The Rewards

Little by little, the deer and turkeys and the rest of the game began to return. Now Stanley and his father oversee wildlife conservation on over 1,000 acres of neighboring land because of their reputation for intelligent, ongoing conservation practices.

In a project like wildlife conservation, one person can make a big difference—just ask the people in Stanley Clarke's community. •••

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Speed Racer

Robb Burns rides his barrel racing Quarter Horses with a passion to win.

Robb sits atop world pole-bending champion Bargain Vick.

By Andrew Markwart

ROBB Burns is a competitor.

You can see the intensity in his eyes when he talks about racing one of his sleek registered Quarter Horses in the barrel and pole bending events. This is not just some kid with a pet pony; this 18-year-old from Ralph, Alabama, wants the fastest, most agile horses around and he isn't afraid to sweat the animal and himself to be the best.

Breeding, training, racing, buying and selling horses is Robb's business, and he is *very* good at it. How good? Consider the pole bending event. In this timed race, the horse and rider weave, or bend, between six poles, turn around, and weave back to the start/finish line. Last year, Robb raced his way to the American Quarter Horse Association's High Point pole bending title. He and his horse, Bargain Vick, were the best in North America. They were fifth in the world. This is quite an achievement, considering Robb spends most of his time barrel racing.

Roll Out the Barrels

From January until June of this year, Robb was on the road a total of three months, travelling to barrel racing futurities (races for young horses, usually 4-year-olds) to places like Texas, Oklahoma, Arkansas and Tennessee.

For someone who is so successful in pole bending races, why would he bother spending so much of his time on the barrel racing circuit?

"There's a lot of money to be won out there," says Robb. "This last trip, I was gone about three-and-a-half weeks and I brought home $5,000. I won most of that in one race. I came in 24th place, but there were about 600 horses in the race. First place at that show paid $45,000."

"When I'm running, it's just me and the clock."

Although the prize money sounds incredible, the $400 average entry fee and high travel expenses will bring you back to reality in a hurry.

Robb has taken his share of the barrel racing honors in the past few years. He has qualified every year for the World Championship Barrel Racing Futurity held in Oklahoma City since he began in 1981. In 1985, Robb raced three horses and placed each one in the top ten. As Robb understates, "We had a pretty good year last year."

Solid Training

The year was made even better when Robb was named FFA's southern region horse proficiency winner for his excellent program. His strong emphasis in training helped him win the honor.

When asked if some horses just aren't trainable for barrel racing, Mr. Competition's eyes come alive. "I've never had one that just wouldn't do it," says Robb. "Some horses aren't cut out for it. I've got one now that doesn't *want* to do it (the horse he rides on the cover). With her, it's more like a quest just to make her something great. I'm gonna make her *solid* before it's over with."

To get a feel for the intensity of Robb Burns, ask him if he enjoys being judged on style. "I rode in a pleasure class once. I hated it. I don't like to do anything slow like that. When I'm running, it's just me and the clock, and if I get beat, it can't be anybody's fault but my horse or me. It's no one man's decision. There's no judging about it."

As for Robb's philosophy about his horse business, it is very simple: "We don't play around, we get out there, do our best—and run with the best horses in the world." •••

Photos by Author

Robb inspects some of the 25 horses he raises at 4-R Farms.

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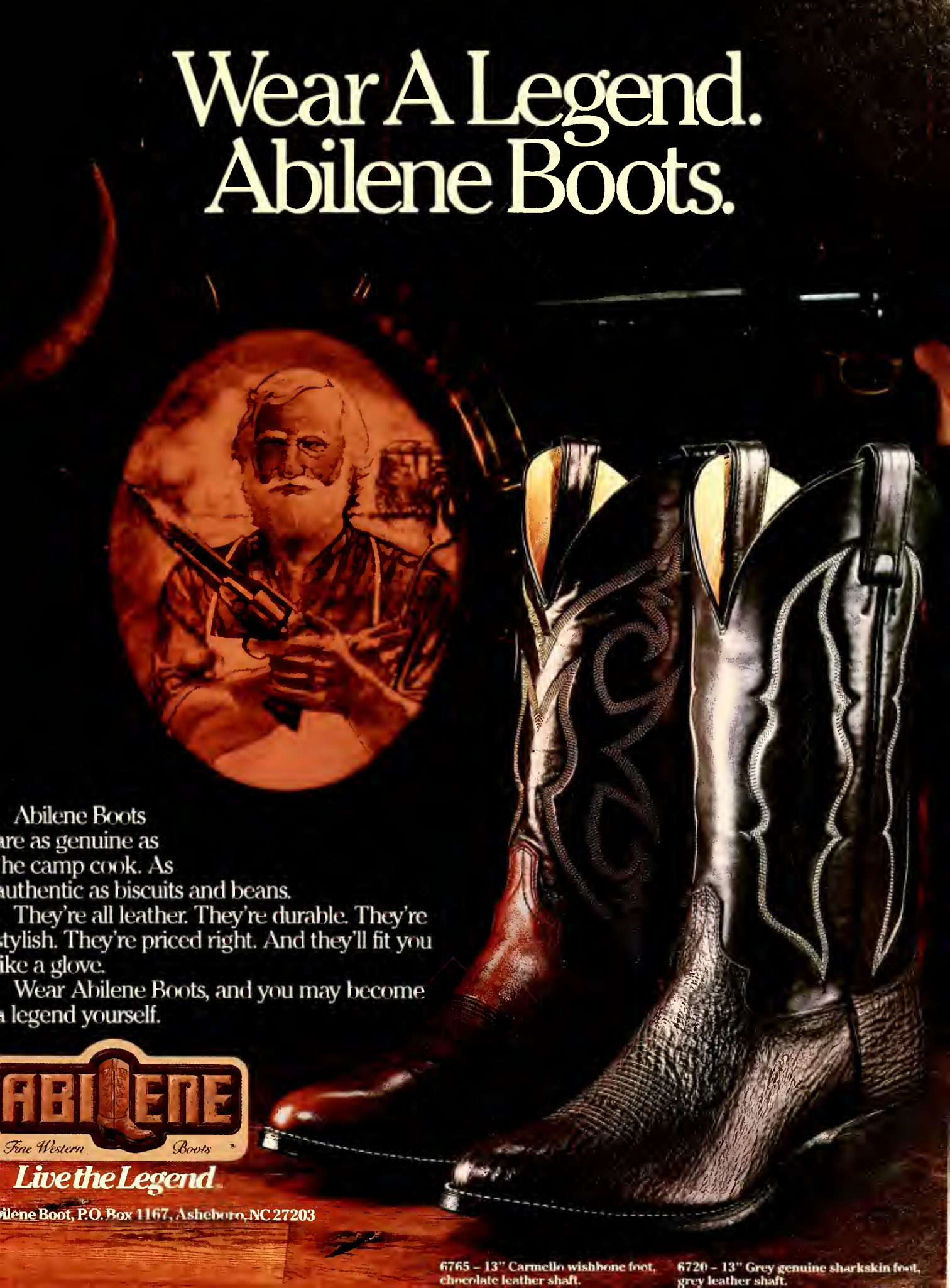

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Exports— It's a Small World After All

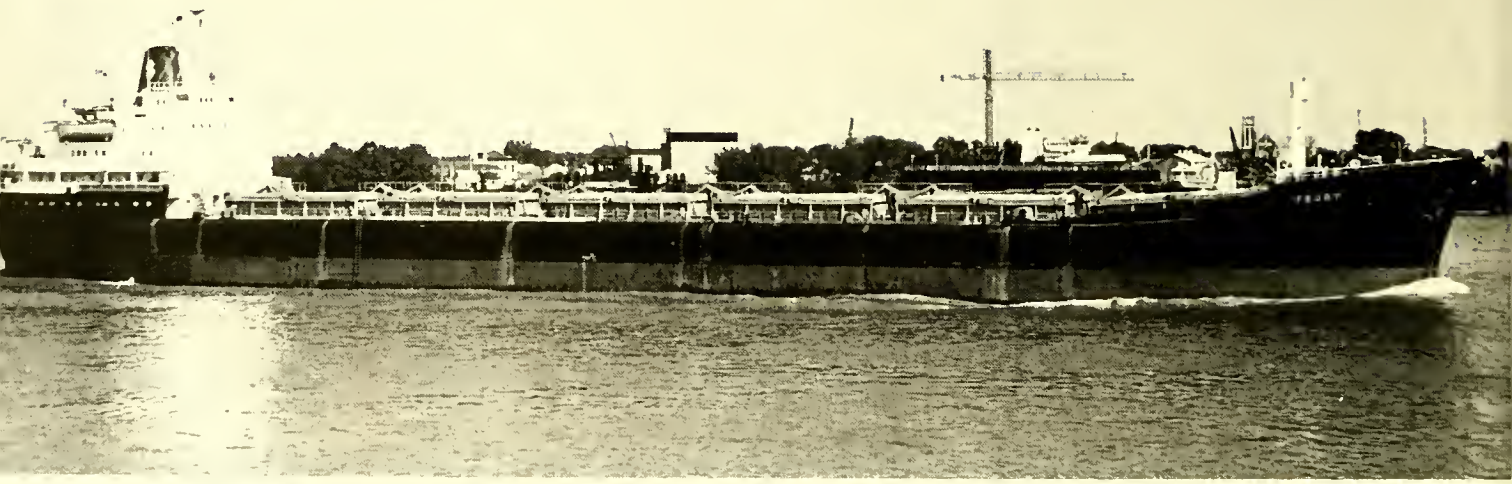

Photo by Luther Markwart

A U.S. politician calls for a grain embargo against another country... A nuclear explosion in Russia causes grain prices in America to skyrocket . . . and a string of rain showers in Brazil makes the prices fall again...European countries suspend meat imports from nearby nations. . . . Foreign trade officials in China grumble about the quality of recently-purchased U.S. grain. . . .

What do these events have to do with you? Plenty, for every one of these incidents directly effects American agriculture—specifically, our farm exports. Today, international trade takes place in a global marketplace. Here the laws of economics are simple: more goods sold overseas cuts our trade deficit, reduces our grain and meat surpluses, and brings more money into agriculture.

But it's really not all that simple. Those laws of economics are often tainted by politics, weather, natural (and man-made) disasters. The world is a very small place when it comes to selling our farm goods overseas. What we do as farmers or agribusiness people directly affects other people, in other nations—and vice versa.

In the 1970s, big gains in U.S. farm exports led a major increase in U.S. farmland values and grain prices for our farmers. American farmers prospered as a result. Farm exports reached a peak in 1981, when we sold $43.8 billion worth of products overseas. Not surprisingly, that was also the highest year for farmland values.

But farm exports have fallen in recent years. The government expects to sell only $28 billion worth of farm goods this year. Our farmers and exporters have lost $36 billion in export earnings since 1981.

Hard times have resulted. Large surpluses of grain now pile up in bins and on the ground in some places. There may be little extra room for this fall's expected record harvest. In spite of a farm policy that idled 74 million acres of wheat land from 1982 throgh 1986, our country now has almost a year's supply of leftover wheat in storage.

These large surpluses have driven down the prices of commodities like corn, wheat and soybeans. Lower prices have made it difficult for farmers to make a profit and pay off their debts.

That's not all. Farmers make up only 3 percent of Americans directly engaged in agriculture production. Another 18 to 20 percent of our population is involved in the food and fiber industry. Statistics show that many of these offshoot industries, like fertilizer and farm machinery businesses, have also been hurt by the poor farm economy.

What Happened?

Why did exports fall so fast? No one knows for sure, but some past events do paint a clearer picture. Several foreign countries experienced a weak economic recovery from world recession in the last few years. In some cases, large foreign debt (Mexico, for example) makes it difficult for countries to afford our products.

In addition, some experts agree that trade policies and political moves have hurt farm trade. Favorable weather and advancing technology have helped make some developing countries self-sufficient. But these countries were motivated to develop their own agricultural systems when earlier presidential administrations

Photo by National Association of Wheat Growers

Less and less of America's grain is being shipped to foreign ports.

embargoed other countries. This caused the U.S. to seem unreliable as a supplier of food.

Another factor which has hurt farm exports is the strength of the U.S. dollar.

The dollar has declined in recent months, making our farm goods more competitive in world markets. This may improve the prices farmers get for their products. But it will increase the price of

foreign goods brought into the United States. And inflation may increase if foreign goods cost more.

Complicating any rebound in the export market is a growing mood of protectionism, both here and among our trading partners. Rumors of trade wars abound, as countries toughen up their export and import policies. An all-out "farm feud" could be touched off at any moment.

Will Farm Bill Work?

This year Congress passed a farm bill that is radically different from previous farm bills. It may eventually be the key to boosting farm exports. Here's how it works:

The new bill gradually lowers market prices of commodities to regain lost sales around the globe. The price of corn, for example, may fall as low as $1.80 per bushel. If the policy works, these lower prices will boost farm exports and higher demand will eventually bring commodity prices higher again.

But how can our own farmers survive on $1.80 per bushel for corn, or lower prices for other commodities? They'll receive help, in the form of government subsidies. Farmers will receive $20 to $25 billion from the government this year alone.

The world is a very small place when it comes to selling our farm goods overseas. What we do as farmers or agribusiness people directly affects other people, in other nations—and vice versa.

Eventually, the government hopes that the lower prices will attract enough world buyers to boost exports and make the U.S. competitive again. Commodity prices will "firm up" again—on their own, without subsidies.

Ag Exports Key to Economy

Most experts agree that boosting farm exports is the key to reviving the U.S. farm economy. But even exports can't solve the problem immediately. "We can't export our way out of the farm crisis in the short run," says one midwest ag economist. "We can see down the road for no more than two or three years, and during that period one cannot be hopeful that exports will lead us out of the woods."

In 1984, a 35-member commission was mandated by the U.S. Congress to identify improvements in agricultural trade and export programs. The panel is made up of congressional, agricultural and business leaders. In its interim report to the President and Congress, the commission identified seven principle causes for the $36 billion dollar decline in exports since 1981. More than 20 recommendations for solutions have been made. Some of those include:

- Establish a uniform agricultural trade policy to maintain U.S. competitiveness and to target efforts against unfair trade practices.
- Prohibit embargoes of agricultural exports except in time of war.
- Exempt all agricultural exports and export progrms from cargo preference requirements (a law that says a certain percentage of goods shipped to other countries must be transported on American ships, not foreign ships).
- Revive farm export programs so that "food first" becomes America's foreign aid policy again.

However, many suggested solutions will require extra funding. And that is by far the biggest challenge. Larry Werries, state director of agriculture at Illinois, one of the country's leading farm export states, says the mood in Washington, D.C., is to curb spending.

"What we will see within agriculture's budget, just as within the overall budget, is an effort to shuffle the money by expanding one area at the expense of deep cuts in another," he says. "We cannot continue to provide lip service to the idea of expanding export efforts and working more vigorously to recapture lost international markets if we are not willing to pay the price. If we ever hope to make a point toward reaching the objective of a free market system, much less recapture those markets, it is going to cost." •••

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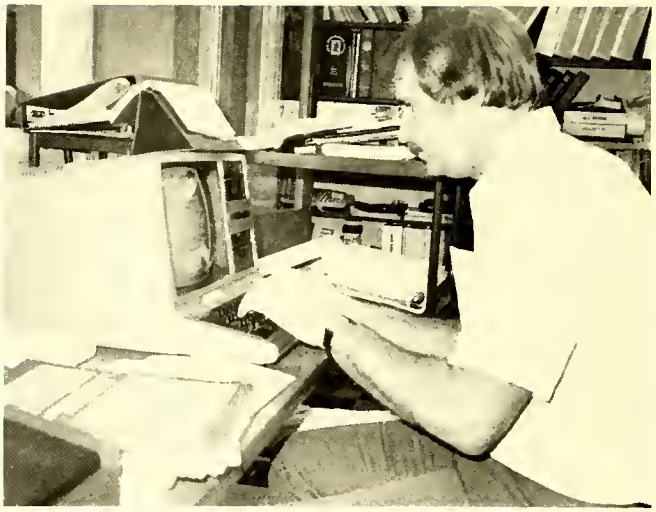
A NEW TOOL FOR THE VO-AG CLASSROOM

Traditional Hands-on Experiences of Vo-Ag Classrooms Get a New Emphasis With Computers

By Jack Pitzer



Joe House uses his computer to add a new dimension to vo-ag.

THERE is just something about a vo-ag classroom that makes it special. In fact, any member could go into almost any other vo-ag classroom in the nation and probably feel right at home.

Beyond the "busy look" you can find evidence of lots of activity just like in your classroom—notices to remind members to get in their records, or come to a meeting or sign up for a work project.

In the shop there may be at least two or three projects underway. Out in the greenhouse there are likely to be several beds of plants plus a couple of specialty plants being grown for the fun of it.

Usually the walls of the classroom are full of awards and recognitions earned by members of the chapter.

There will also be the tools for teaching—an overhead projector, a mini-library of textbooks and references, manuals for all sorts of equipment and programs, a rack displaying farm magazines and a busy teacher's desk or office.

Nowadays you will probably find another tool being used by the teacher or advisor—the computer.

In Princeville, Illinois, northwest of Peoria, Advisor Joe House says about his computer, "That's my right-hand man. I'd be lost without it.

"And so would my students. For one thing, my students can read my tests and quizzes now. Handwritten or typewritten copies were difficult to read and slow for me to produce. I can use my word processing software and get a well typed ready-to-reproduce quiz or class handout in no time."

Mr. House also does the correspondence to the state FFA association, fellow ag teachers in his section and to the national FFA with his computer and software.

In other chapters around, the chapter secretaries are using computers to keep chapter minutes. Likewise, treasurers are using them to keep their records and reporters are preparing news copy with word processors.

Also there are many chapters who keep records of their fund-raising efforts via computer. The Princeville FFA has been recognized as a top Vitality Seed selling chapter. They use the chapter's computer to do all sorts of record keeping to help them earn that distinction.

They have printouts of customers for the last several years and what they ordered, who sold it to them, if they paid and their addresses.

In the classroom, the newest plaques are for outstanding farm business management teams. And Mr. House is excited to share stories about how students have enjoyed learning about the business side of agriculture in class. Their awards are the result of classroom instruction, not just preparing for contests.

He and his students have done commodity buying and selling exercises using the computer and information it provides. Some days students are waiting outside the classroom door to see "if they made anything today!"

Certainly record keeping is an important part of any management instruction program and the computer is a great tool to help with business records.

Mr. House is also excited about the software available from the FFA to help members fill out proficiency and American Farmer applications.

"Another thing I like is the option I have to participate in the Ag Ed Network. We have been on it now for a year or so and find all kinds of uses. The main things are to enhance the work in the classroom.

"I use the lessons to beef up what I've already got planned to teach. And, of course, when we're doing the buying and selling exercises, we get the live prices of the minute right off the Network. It makes it all real.

"In fact, I was getting excited myself about how I was doing in our class exercises," says Mr. House.

The Ag Ed Today is another feature he has used to bring current agriculture news and events into the lives of the members in Princeville. He can get online in the morning before class, download it after a few minutes online, then print it out and make copies for the classes.

When a local cooperative elevator offered some money to help the chapter, Advisor House suggested buying a computer and printer for the vo-ag department. He then took a class for teachers on using computers in the classroom.

He purchased a variety of software early-on and has used it extensively to help members and their parents with farm management planning, marketing and record analysis. He also expressed interest in the obvious advantage of joining ACCESS, the new FFA software subscription service.

Support from school administration, counselors and a 40-member Alumni Affiliate (16 Life members) makes this chapter stay alive and vital in the community. The advisor has a record of intention from each of the Alumni members plus data on how they can help—speak, drive, sponsor, support, substitute.

The chapter farm is right on the school grounds—five acres they put in beans and corn. The parents and Alumni help here too. It has been a no-till operation for the last five years, as well as a way to compare various chemicals and crops. The computer has been helpful in keeping records.

Even the FFA fishing trip uses the chapter's computer to keep records of the point system which lets members earn the right to go. This year's trip will be to Minnesota.

The combination of good software and up-to-date information is helping vo-ag classrooms like Princeville be a place where learning is more exciting and more practical.

A computer could be considered the new tool in a vo-ag classroom. But more likely than not, it is the most used tool around when advisor and students get their hands on one. •••

(Continued from Page 15)

soil and can be toxic to the next crop to be planted. These "designer" seeds could give the farmer more flexibility in his crop rotation.

Exciting Breakthroughs

Plant viruses are one of the main factors in reducing crop yields, and for years scientists have searched for a genetic engineering technique that would produce virus-resistant crops.

Researchers from Monsanto and Washington University in St. Louis, in a classic demonstration of academic/commercial cooperation, believe they have achieved a breakthrough that will lead to the first genetically-engineered virus-resistant agricultural crops. A field-ready strain of these plants could be ready in one-to-three years, they say.

Just about every crop you can imagine is, so to speak, under the microscope at the moment.

Scientists associated with the immense tomato growing industry are working on the genetic key to producing a tomato with lower water content. The tomato now has around 5 percent soluble solids, if that could be raised to perhaps 8 percent, processors would benefit greatly. H. J. Heinz Company and Campbell Soup Company are financing this agri-genetic research. These California tomato processors are eagerly awaiting a breakthrough, which would lead to more soup or ketchup for their dollar.

Monsanto is seeking to field test a common type of soil bacterium that has been changed through genetic engineering to produce a naturally-occurring pesticide. The bacterium normally lives in the soil in association with plant roots. With the new ability to produce its own insecticide, the bacterium can protect the plant roots from certain types of soil-dwelling insects. This ability is achieved by the insertion of a gene that causes the bacterium to make a protein that is toxic to certain insects.

With all the biotechnology research and development that is under way, and the even greater activity that is predicted for the years ahead, there could be a bright career future in biotechnology.

These are fascinating times for the scientist, they are exciting times for the farmer, with much promise of even more astounding innovations in the future.

Just what that future holds is difficult to predict. But then, who could have guessed only a few short years ago the kind of things that are already happening in 1986? We now have insulin being prepared commercially from genetically engineered microbes, we have growth hormones, produced by genetically engineered micro-organisms, not too far from being ready to market, and we have a whole range of biotechnology products and techniques lurking in the wings.

Not every farmer will welcome these innovations. We can expect some resistance—there always is when something new and unfamiliar appears. But we have to remember that we are talking about changing things in a few years that have taken two or three hundred years to evolve in the past.

Just about every crop you can imagine is, so to speak, under the microscope at the moment.

Hybrid seed made a tremendous difference to agricultural production—so did milking machines, feed additives for beef and swine, confinement and broiler houses. And the magic of computerization has revolutionized business methods on the farm. Now, however, we will have to adapt to change more rapidly. The agriculturist of today—and tomorrow—needs to learn everything possible about the new agricultural science and keep informed to make the best management decisions as rapidly as possible.

The experts all agree—the application of high technology, including the mysteries of genetic engineering, is going to have a profound impact upon the way we run our farms and ranches in the future. And, if current predictions are correct, that future is near. •••

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BOAC Project Saves Lives

FFA Chapter leads community in implementing emergency information system.

By Janis Borgman

An infant girl chokes and suddenly stops breathing. Her parents make an emergency call for help. Ambulance personnel respond to the rural address, but the driver cannot seem to locate the victim's road.

JIM Fink, president of the Union, Missouri, FFA Chapter, overheard this tragedy unfold while listening to a CB scanner. Hearing the driver's anquish led Jim to urge his chapter to do something that would shorten the emergency response time to rural residents in the surrounding communities. The chapter responded with a proposal for a $40,000 emergency numbering and response system for 4,000 rural residents in Franklin County, Missouri.

The Union FFA, with its alumni chapter's support, agreed in March, 1985, to develop and implement an emergency numbering system (ENS), as its Building Our American Communities (BOAC) project.

Both the chapter and the FFA Alumni realized the project was a good idea, but decided they would need additional community support because of the project size and the expense involved. More than a dozen organizations including fire and ambulance districts, the county sheriff's department, county tax officials and a variety of business firms agreed to support the project, according to Donald Elbert and Kenneth Berghorn, the Union FFA Chapter advisors.

The large amount of money involved in the project necessitated that the emergency numbering system become a Missouri non-profit corporation, complete with elected adult officers. Although a wide spectrum of groups were represented on the board, the officers were all FFA Alumni members.

"The FFA served as the catalyst to get the community in action," said Fink. "We've stimulated the community to do a job they've wanted and needed to do for years."

"Public relations played a key role in getting community support behind the project," said Elbert. Newspaper articles, radio programs and presentations to various local organizations by FFA members and ENS board officers helped to create awareness and bring in donations for the project totaling $12,000, he said.

A local savings and loan granted an interest-free loan of up to $25,000 to help start the project. Another local business donated 430 binders to house the hard copy of the emergency information.

The project involved developing, from scratch, a system that assigned a number to every parcel of land in a 117-square mile rural area around Union, Beaufort, Leslie and Gerald, Missouri. These numbers are tied into a special computer program that uses them to help locate emergency victims.

FFA members worked after school, during free periods and throughout the summer assigning numbers to all inhabited parcels of land.

Photos by Donald Elbert

ENS program designer Gerald Kerr, far left, checks data being inputed by Kathy Walker and Jerry Fink. Above, right, Kathy and Jerry drive in an ENS marker.

Once the routes and land parcels were numbered, a road chairman visited each house along a route to ensure the accuracy of the information and to gather data for the computer.

The signs are installed at the entrance of each property, with the arrow on them pointing in the direction of the residence.

FFA members and other volunteers have worked since November putting up the 6,000 signs. The project will be completed by October 1, 1986, Elbert said.

When their sign is installed, residents receive a card listing their emergency number. The five-or six-digit code features an abbreviation for the road name, a fire district number and a three-digit property number. For example, in the sign PDZ:015, the PD stands for Prairie Dell Road, the 2 stands for Union Fire District and the digits 015 stand for the individual residence that the sign will mark.

A computer was purchased through donations and placed with the emergency dispatcher in the Union County sheriff's office with a special software program. Another portable computer is used to input information into the system.

Emergency victims can get help by simply reading their emergency number from the card over the phone, or by quoting it from memory. Within three seconds after the ENS number is typed into the computer, the emergency dispatcher knows where the emergency is, the name of the property owner, directions to the property, conditions that could help or hinder response time and significant medical information about the residents of the property.

This information can be extracted from the computer files in a number of ways. Besides typing in the ENS number, the computer can search files based on the victim's name, address or phone number.

A hard copy backup listing of all of the numbers on each road is listed by sequence in notebooks, so that the informaton can still be accessed quickly in case of computer failure.

The ENS ad hoc committee will work with the Union FFA to establish a permanent committee to keep the system accurate and operating. Now that the initial project is near completion, its success has stimulated interest outside of the Union area. The Boles and St. Clair, Missouri, communities have joined in the emergency numbering system project—meaning two more fire districts and two new ambulance districts will be involved.

Meanwhile, the local ambulance drivers have high praise for the system. Union ambulance driver Debbie Eye said, "The computer is a great help. If it hasn't already saved lives, it has certainly saved a lot of anguish by allowing us to get to the emergency scene much faster." •••

Union FFA members and advisors pose with local sheriff and fire departments, ambulance service and savings and loan representatives near ENS' first sign.

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The Farm on Rubber Tires?

That was a novel idea back in 1936 when Harvey Firestone started his move to "Put the Farm on Rubber Tires."

RUBBER tires on tractors may be taken for granted in this age of "high tech" but it wasn't always that way. Fact is, in 1936 that was a rather revolutionary step.

That was the year tire pioneer Harvey S. Firestone devoted considerable effort to a nationwide campaign called "Put the Farm on Rubber." His goal was to prove to the skeptics the benefit of rubber tires on tractors. He built a model farm in an abandoned Akron factory building, where he demonstrated these new Ground Grip tires first to his salesmen and to tire dealers.

Mr. Firestone was born and reared on a farm in Columbiana, Ohio. After jobs in Detroit and Chicago as a buggy salesman, he returned to Ohio in 1900 to establish The Firestone Tire & Rubber Company. Even as his prosperity flourished as a tire manufacturer, Mr. Firestone often sought the quiet relaxation of his Columbiana farm home as a retreat.

Harvey S. Firestone used the fields at his farm as a testing ground for various types of farm tires during the 1930s.

In the late 1920s, he began to dream of reducing the harsh ride of steel-wheel tractors by use of rubber tires. By 1931, Mr. Firestone had become determined to develop a practical farm tire and he and his engineers began work in the fields of the family homestead in Columbiana on such a tire.

Early attempts at tractor tires were actually airplane tires on truck wheels. Slippage of those tires on the rim led to the need for development of a tire designed specifically for farm fields. Firestone's first such product emerged in late 1932 and was a low pressure tire featuring an open chevron tread design. Mr. Firestone himself tested the various designs on equipment at his Columbiana farm and found that many treads with considerable open space between the chevrons did not provide the needed traction.

Then, in 1935, Firestone engineers designed a tread pattern which connected the chevrons to one another and this development improved traction. That year, the company introduced the Ground Grip line of tractor tires and Mr. Firestone was convinced that the company had found a practical low pressure farm tire. Farmers, tire dealers and equipment manufacturers, however, remained skeptical of the practicality of farm tires. In 1935, more than 85 percent of the farm equipment sold in the United States ran on steel wheels.

Mr. Firestone recognized the great potential of farm tires. He needed to develop the market by illustrating how tire-equipped farm machinery could enable the farmer to cover more acreage in less time, how traction would be increased, how stronger pull saved fuel and how the stability and cushioning provided by tires greatly reduced the vibrating stresses

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The boyhood house and barn of tire pioneer Harvey Firestone were moved from Columbiana, Ohio, to Dearborn, Michigan, where they opened a working farm exhibit.

placed on equipment and the driver.

The Firestone Homestead in Columbiana literally became a working farm tire exhibit in 1936 as Mr. Firestone demonstrated efficiency of the tires on 32 various kinds of farm implements, including tractors, a mower, a combine, wagons, spreaders, a feed truck and others.

At the 1936 Great Lakes Exposition in Cleveland, Mr. Firestone built an elaborate display, featuring a pavilion, a working farm with animals and rubber-equipped machinery and a full-size farmhouse, all designed to tell the story of farm tires to the general public. Over the summer months, tens of thousands of spectators saw firsthand how tires improved the efficiency of farming.

Mr. Firestone's marketing efforts to promote farm tires during 1936 paid off. From 15 percent of the original equipment market in 1935, use of tires on new tractors sold in the United States increased to 42 percent in 1937. Two years later, tires came as original equipment on 85 percent of new tractors.

By the time of his death in early 1938, tire pioneer Harvey S. Firstone had begun to see his dream of "putting the farm on rubber" become a reality.

The Firestone farm is now a sophisticated tractor tire research development and testing center. Since 1952, the 352-acre center has put farm tires to tests and abuses far exceeding anything found in everyday use on a farm.

New designs, compounds and constructions undergo technical, endurance and field testing before they are approved for production. Firestone tests both bias and radial farm tires ranging in size from the smallest garden tractor tires to the 73x44.00-32 Flotation 23° tires.

"Columbiana is the only test complex of its kind in the world established exclusively for testing tractor tires," said William Straub, Firestone's manager of tire testing. "It enables us to develop test results on tires in a matter of months, where in actual service it would take three to four years."

A 1936 photo of Harvey Firestone showing a tire-equipped irrigation system to his friend Henry Ford during a visit.

This year marks the 50th anniversary of Firestone's introduction of the rubber farm tire and we see the fulfillment of Harvey Firestone's dream of putting the farm on rubber.

Also in 1986, the Firestone Tire & Rubber Company completes 42 years of supporting the FFA through the National FFA Foundation. Firestone is currently sponsoring the Agricultural Mechanics Contest and the Agricultural Mechanics Scholarship program. For many years, a regular visitor to the National FFA Convention was Mr. Raymond C. Firestone who served as president of the company and was chairman of the board until 1976, when he retired. He now lives at Lauray Farms, Bath, near Akron, Ohio. •••

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FFA in Action

National Officers in *ACTION*

This is the state convention season in FFA. National FFA officers travel to every state to participate in state convention/leadership events. In Minnesota, National Secretary Coby Shorter spoke to the 2,629 members there, attended the state FFA Alumni Convention; presented awards; helped prepare newly elected officers for their year of service; and was part of the Vespers program. Coby, left, presented the state Horse proficiency award to Stacey Busswitz of Westbrook. State FFA Foundation Chairman Mr. David Karpinski, of CENEX, helped distribute trophies to winners.

Coby was with National Vice President Kip Godwin to visit Jacques Seed Company. They were accompanied by Minnesota State Officer Ann Marie Henkels when they met Joe Waldo, advertising manager at Jacques. The FFA plaque recognized the company's five-year sponsorship of the National FFA Convention newspaper.

Kip had state convention duties in Montana when he presented the Star State Greenhand plaque to Jody Dempster of the Park City Chapter. Their state conference was held in Bozeman. •••

Lucky Green

Some say it was all beginners luck, but the Alex, Oklahoma, community knows the true story. The FFA Freshman Greenhand Parlimentary Procedure Team accomplished the impossible. This year they were the state runner-ups in competition.

The top-ranking team of Greenhands were (front row, left to right,) Treasurer Kiley Rice, President Tracy Goynes and Secretary Doug Johnson. Top row, Reporter David Jones, Sentinel Patrick McKay and Vice President Greg Wilson.

Six freshman worked very hard to improve their skills for the parliamentary procedure contests this spring. This event takes hard work, requires studying Robert's Rules of Order, and practice, practice and then more practice. *(Callie Thurston, Reporter)* •••

Girl Talk

This is the 1985-86 New Mexico State FFA Officer Team. Crystal Wooton, lower left, is the first female FFA president to serve in New Mexico. The other officers are: lower right, Tracey Clements, sentinel; middle, left to right, Alice Booky, treasurer; Deana Calhoun, secretary; Cheryl Dimitroff, reporter; top, left to right, Dede Oltmanns, vice president; K. C. Jones, vice president. •••

(Continued on Page 44)

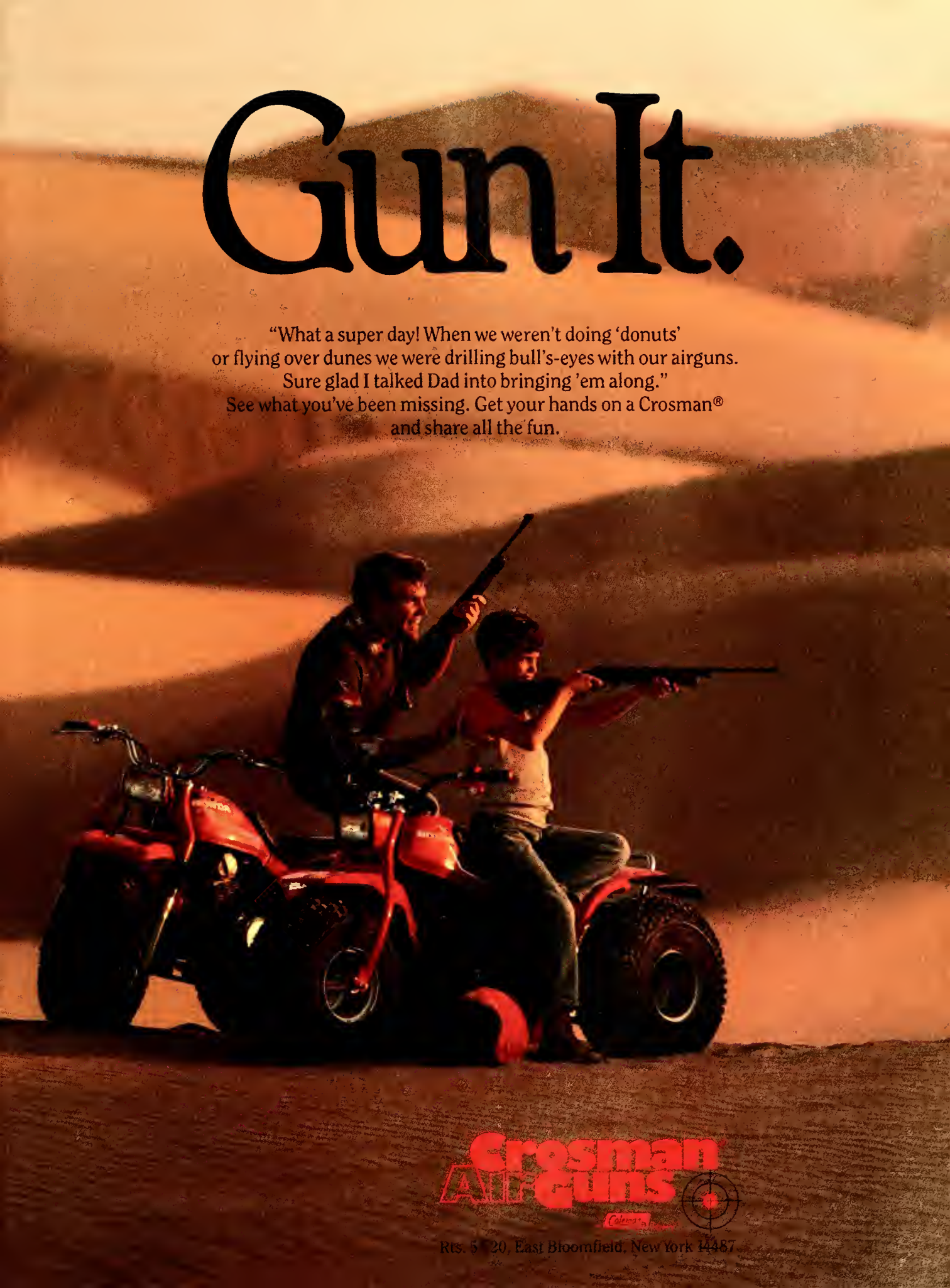
Training for the Hog Olympics

A popular publicity project for the Denison, Iowa, FFA Chapter for the past three years is their swine olympics. Sixteen hogs are trained to go through a course consisting of a slide, maze and barrels.

First, they are released from the shoot. Then they go up the straight-away, around the corner, where they either go up the stairs to go down the slide or through a maze with several different passages. Finally they go through the tunnels where they get their treat of food. The audience may bet on one of the five pigs that run.

The races are run at public events such as the Manilla Centennial and Denison's Town and Country Fling and always attract a large group of people. Twenty to thirty races are run each evening at these events.

The two trainers for this year are Karry Schurke and Tony Blackman. They started training the hogs on April 24 of this year. •••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(Pick up ACTION from Page 42)

Grand Champion Sales

Grand champion prices were paid for livestock sold at the Arizona National Livestock junior show auctions. Grand champion steer, shown by Marty Sharry of Eakly, Oklahoma, FFA sold for $10.50 per pound. Darren Graumann of Grait, Oklahoma, FFA exhibited the grand champion market lamb which sold for $20.00 per pound. •••

Honors Memorial

Members of the Bellevue, Ohio, Chapter were touched with the presentation of the Doug Wilson Memorial Scholarship at the Bellevue FFA Chapter annual FFA banquet. The award was presented by Doug's parents, Mr. and Mrs. R. Dale Wilson. Doug served as the chapter president and North Central Sectional State Vice President at the time of his death as a result of a car accident as he returned from FFA Camp last summer.

This special memorial scholarship was shared by Bellevue FFA senior members Roy Norman and Dana Lieske. The scholarship was presented as a result of donations received to the memorial fund.

Roy Norman also received the Doug Wilson Memorial Dairy Judging Award which is a rotating trophy presented to the Bellevue FFA member that scores the highest in the state FFA Dairy Judging Contest. •••

Safety Show Time

The Oak Harbor, Ohio, Chapter participated in a safety demonstration given by the local fire district and mid county emergency medical service. The 78 members were given instruction, viewed safety movies related to farmers and then participated in several demonstrations by both of the community service agencies.

One vo-ag class viewed the movie "Fire Fighting in Grain Elevators." Other classes viewed "Tractor Safety is No Accident," "Tractor Safety in Agriculture" and "How to Have An Accident."

The EMS personnel and firemen showed and demonstrated rescue equipment on each of their respond units. *(Amy Avery, Reporter)* •••

Hearing Aids

Granton, Wisconsin, FFA has begun work on a national hearing test survey for farmers. It is a fact that farmers suffer a greater hearing loss than most occupations.

So Granton FFA, in cooperation with the National Farm Medicine Center in Marshfield, Wisconsin, made a survey of farm noises and then the chapter had all members' hearing tested.

A dozen central Wisconsin chapters are cooperating in this five-year study. They will be tested annually for hearing loss and will try to find the cause.*(Eric Eibergen, President)* •••

Flower Cooperation

Students of the junior vo-ag class at Lakota, Ohio, started a plant co-op this spring. The co-op, as in the past years, gives students a chance to experience what a co-op is like.

Every student in the class has the opportunity to become a member and join the co-op. Although they are not required to join, most decide that it is a worthy investment.

Like any other co-op the members are in charge of operating their business along with electing a board of directors and two members from the other vo-ag classes.

During these elections Betsy Brubaker, Roger Geymen and Ken Mathias were voted in as members of the board. Mark Huffman was chosen as business manager.

The co-op was operated daily from 8:00 a.m. to 3:00 p.m. in the high school shop.

The chapter purchased flowers from the co-op to give to Mrs. Renner's fourth grade class and the high school.

Those flowers donated to Mrs. Renner's class at East Elementary were planted around the school's sign outside by the students in her class, in order to improve the area.

The flowers that were donated to the high school were used to help decorate the outside area for the up-coming graduation ceremony.

Scott Bateson, left, and Brad Thaxton, right, filling an order.

The FFA Plant Co-op that was started during the month of April was liquidated by students the last day of school.

The cooperative sold approximately $2,500 worth of vegetables, annual flowers and perennials as well as hanging baskets during Mother's Day.

After all cooperative bills are paid the remainder of the profits will be paid out to members in the form of patronage refunds. This usually amounts to about 15 cents on each dollar of sales generated. Therefore, each member benefits from the cooperative financially in proportion to the support of the business. •••

Trophy Movers

Members of the Dyersburg, Tennessee, FFA Chapter display honors earned as the 1986 champion chapter of West Tennessee recently announced at the awards program banquet at the University of Tennessee at Martin. They were chosen from 49 chapters of West Tennessee. Members displaying the awards are, from left, Wayne Jones, John Butler, Bryan Finley, Spence Lowery and Benny Moore, advisor. •••

Swine Clinic in the School

The Jefferson, Ohio, Chapter hosted a county swine clinic for the benefit of area youth carrying swine projects. The clinic included a live hog evaluation, a carcass demonstration and a roundtable discussion.

In the live hog evaluation, held in the vo-ag shop, market hogs were judged in the same manner as they would be at the fair. Area pork producers then demonstrated an ultrasound device that measured the backfat thickness on each hog.

The carcass evaluation, held in the adjoining industrial arts shop, showed how carcasses are graded and measured.

The roundtable discussion, held in the vo-ag classroom, stressed important facts concerning the selection, housing and feeding of market hogs.

Jefferson FFA hosted this clinic because of an increasing number of members carrying swine projects. The evening was a huge success as nearly 100 people attended this education clinic.*(Shawnda Self, Reporter)* •••

Dog School

The Broome Tioga Occupational Center in New York held an educational canine program for 25 animal care students in April.

The Board of Cooperative Educational Services picked two students a few months ago to each raise a 16-month-old German Shepherd.

The students are responsible for training these dogs to respond to all verbal commands. The student must take the dog wherever he or she goes.

The purpose of this training method is to help students get a better understanding of how important a working relationship with any animal is. Owning or just training an animal for a few months takes a lot of time, patience and love.

After the training session with the student is over, the dogs will be given back to the police. There they are trained to do much harder things such as recognize the smell of drugs and explosives.*(Lisa Blance, Reporter)* •••

FFA At 50

The Toulon, Illinois, Chapter celebrated its 50th chapter banquet in May. A typical hometown potluck supper was organized to begin the evening in the school gymnasium adjacent to the vo-ag department.

President Cliff Lane was host and master of ceremonies. Special guests included school administration, community and FFA Foundation supporters.

Honorary Chapter Farmer degrees were presented to LaVern Larson, John Lane and Jack Pitzer, senior editor of *The National FUTURE FARMER*, who was a member and officer of the chapter in 1955-1959.

Advisor Jones presented various awards to members.

One important award each year is the memorial award in recognition of former advisor Charles Pearson.

Following the closing ceremonies, members were "sold" by auctioneer and former member Joe Orwig. •••

Jim McMillen was sold for top dollar in the FFA "slave sale."

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The Joke Page

"I've had enough of this," said the mother pigeon to her little one. *"Either you learn to fly or I'll be forced to tie a rope around you and tow you!"*

"Okay, okay," said the baby. *"I'd rather die than be pigeon-towed."*

Bobby Mae Cooley
Bowen, Illinois

Fred says, *"Life is like a shower. One wrong turn and you're in the hot water."*

John McGowan
Copemish, Michigan

John: *"I bet I can jump higher than that ten-story building."*
Tom: *"I'll bet you can't."*
John: *"Easy. Buildings can't jump."*

Ardean Villiard
Shawano, Wisconsin

"Dear, do you think it's too late to spray?"

One day a barbershop supplies salesman was driving down the road when he spotted a patch of fur in the road ahead. He slowed down and stopped near the patch.

A crowd of other drivers stopped to watch. The salesman got a can out of his sample case and walked over to the fur and sprayed the can at the fur, stepped back and sprayed again and repeated the action several times.

Suddenly a rabbit twitched and got up, waved and ran down the road, stopped, waved and ran some more.

Needless to say, the other drivers were truly amazed and asked, *"What was in that can?"*

"Well," the salesman said, *"it was hair restorer with permanent wave."*

Ken Lovitt
Anita, Iowa

After our advisor purchased his pickup truck, he bought a book on gasoline engines to avoid being ripped off at the gas station. The first time he took the truck in for repairs he smugly wrote down what the problem was and what needed to be fixed.

That night when he returned for the truck he found a note attached to the windshield that read: *"I fixed the problem, but to fix the problem you described you'll have to bring in the lawn mower. I suggest you go back a couple of chapters. My wife has the same book."*

McKay FFA Chapter
Salem, Oregon

A young surgeon got a call from a colleague who invited him over for a poker foursome. *"Going out, dear?"* asked the wife.

"I'm afraid so," was the brave reply. *"It's serious. There are three doctors there already."*

Marguerite Reasner
Indianapolis, Indiana

Q: How do you fix a broken tomato?
A: With tomato paste.

Wesley Davis
Vero Beach, Florida

A prize fighter, having a rough time in his first important fight was floored in the second round. With glazed eyes, he tried to look up from the mat. *"Let the referee count,"* yelled his trainer. *"Don't get up until eight."*

The fighter nodded and asked weakly, *"What time is it now?"*

Jon Gorman
Rush City, Minnesota

Q: Why was the fruit tree sad?
A: He was always getting picked on.

Laura Stowe
Roswell, New Mexico

Q: How do wood carvers grow old?
A: Whittle by whittle.

Jeff Hawes
Quincy, Michigan

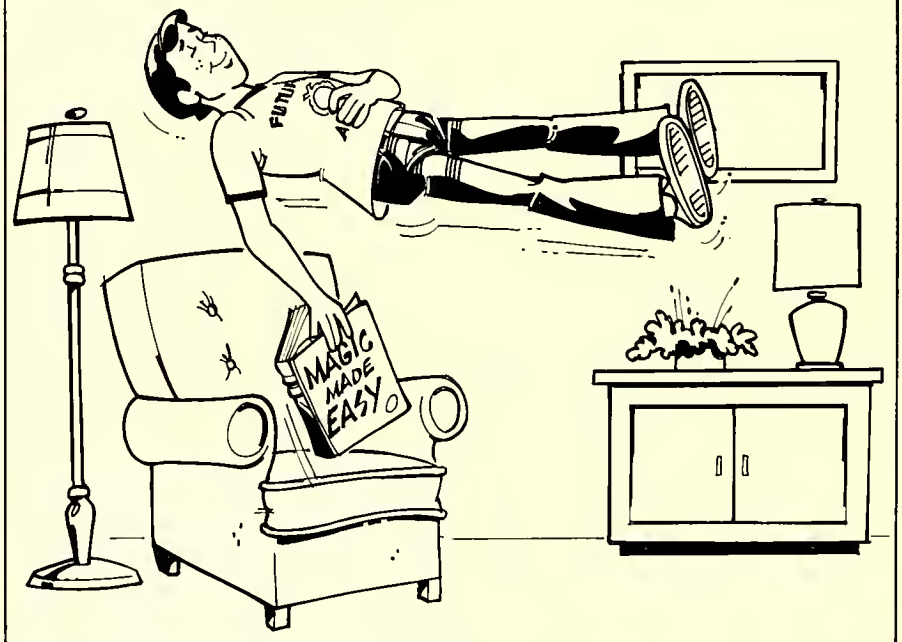
A seed company sales manager sadly told a friend that his best production person in corn had just died.

"That's terrible," said the friend. *"What did he have?"*

"North and South Carolina and the eastern half of Tennessee."

Willie Unsel
Ada, Oklahoma

Charlie, the Greenhand



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